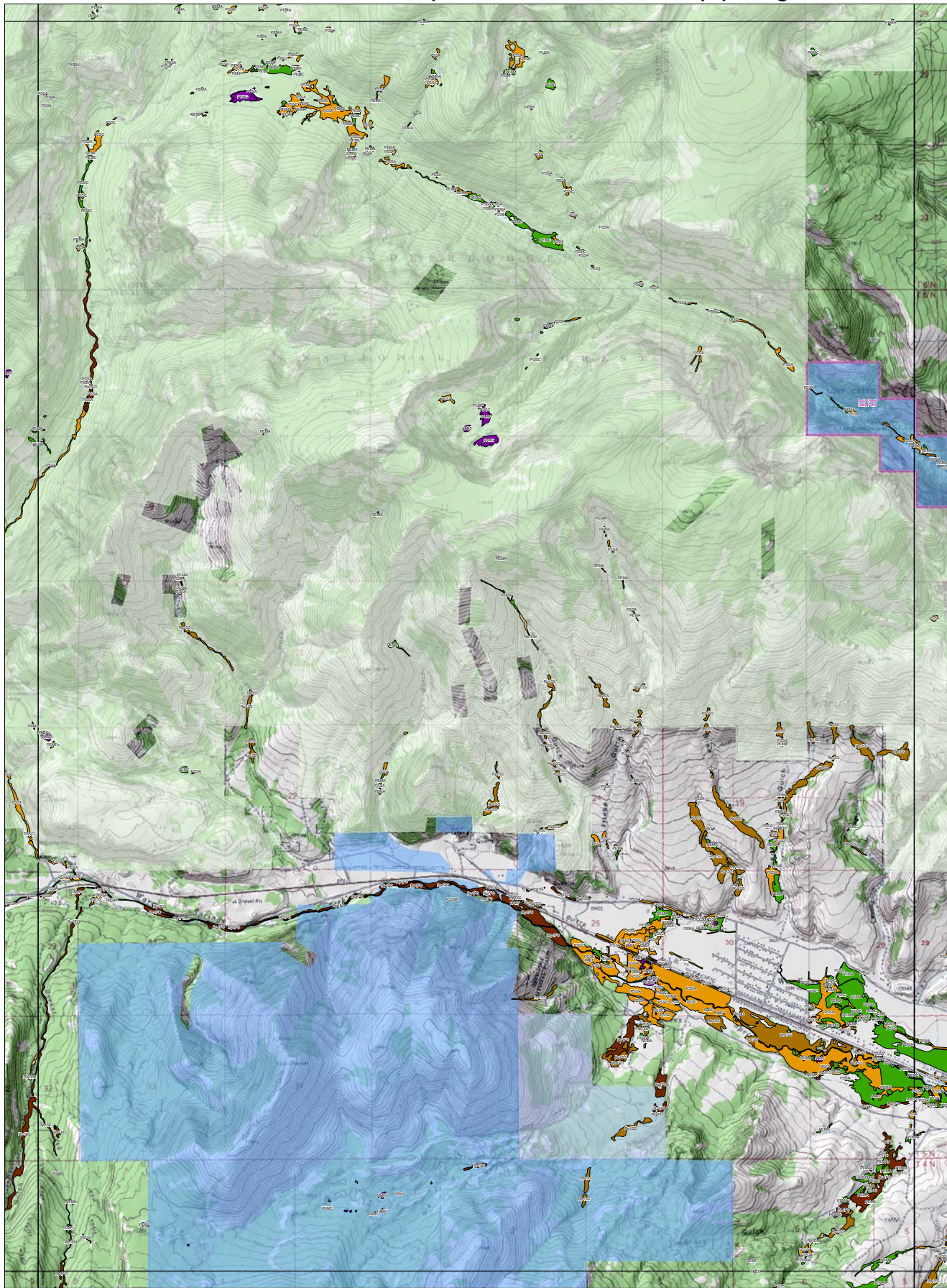


Appendix E:  
2008 Water Quality Information from DEQ's Clean Water Act  
Information Center

Aquatics

Wetland

# Wetland and Riparian Area Mapping



**Wetland and Riparian Mapping**

Blue	Lacustrine
Green	Freshwater Pond
Light Green	Freshwater Emergent Wetland
Orange	Freshwater Shrub Wetland
Dark Green	Freshwater Forested Wetland
Dark Blue	Riverine
Light Orange	Riparian Emergent
Light Green	Riparian Shrub
Dark Orange	Riparian Forested

**Ownership**

White	Special Designations	Light Blue	Undifferentiated State
Yellow	Conservation Easements	Dark Blue	State Trust Lands
Light Green	US Bureau of Land Management	Light Blue	Montana Fish, Wildlife & Parks
Light Orange	US Bureau of Reclamation	Light Blue	State - University, Institutions, MDT
Light Green	US Fish and Wildlife Service	Light Blue	DNR (Water Project Lands)
Light Green	National Park Service	Light Blue	Local Government
Light Green	US Forest Service	Light Blue	US Bureau of Indian Affairs Trust Lands
Light Green	USDA (Ag Research Stations)	Light Blue	Tribal Lands
Light Green	Army Corps of Engineers	Light Blue	Plum Creek Timber Company
Light Green	Other Department of Defense	Light Blue	Private Land Trusts

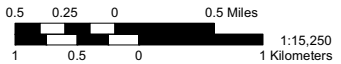
**Quad Code - 4611321**  
**Quad Name - West Valley**

The MNHP wetland and riparian mapping has gone through two stages of internal review. It has been field verified and approved by the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI). Finalized mapping is available for download from the USFWS as well as from NRIS.

The wetland and riparian mapping is not an exhaustive or comprehensive inventory of wetland and riparian areas within the mapping boundary. Field verification of the absence or presence of wetland and riparian areas will always be an important obligation of users of our data. Additionally, the NWI definition of a wetland is more inclusive than the definition of a jurisdictional wetland, and thus the wetland boundaries shown in our dataset cannot substitute for boundaries mapped in a wetland delineation.

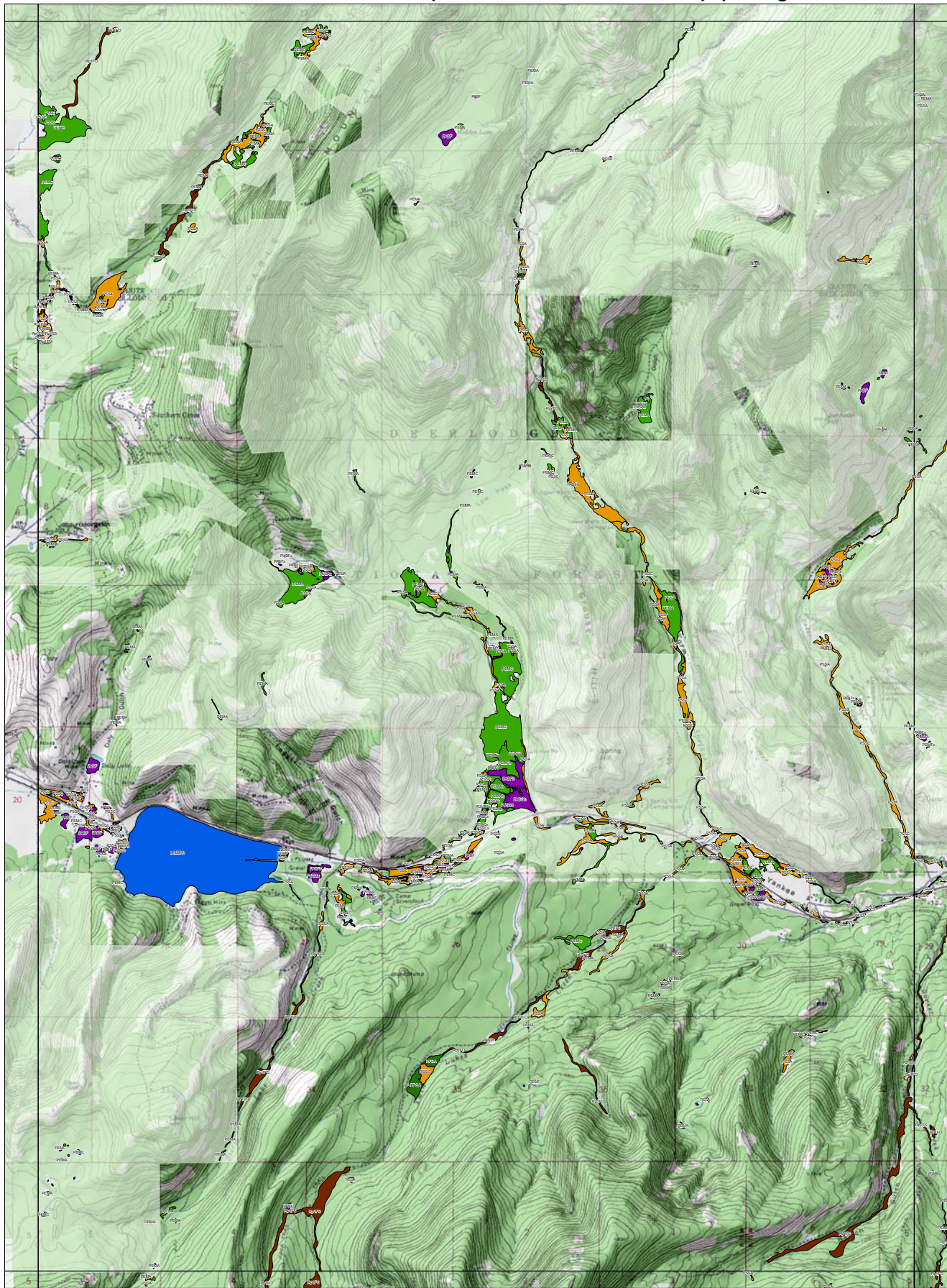
Wetland and Riparian mapping is mapped to the FGIC and USFWS National Wetland Inventory standards using the 2001 NAIP imagery at a 1:22,000 scale. Thus, the data are intended for use in publications, at a scale of 1:12,000 or smaller. Due to the scale, the primary intended use is for regional and watershed data display and analysis, rather than specific project data analysis. The map products were neither designed nor intended to represent legal or regulatory products.

Data Sources: The stewardship data was created by the Montana Natural Heritage Program. All other data layers in this map were obtained from the Montana GIS Portal which is maintained by NRIS.





# Wetland and Riparian Area Mapping



**Wetland and Riparian Mapping**

Blue	Lacustrine
Purple	Freshwater Pond
Light Green	Freshwater Emergent Wetland
Yellow-Green	Freshwater Shrub Wetland
Dark Green	Freshwater Forested Wetland
Dark Blue	Riverine
Orange	Riparian Emergent
Light Orange	Riparian Shrub
Dark Orange	Riparian Forested

**Ownership**

Pink	Special Designations	Light Blue	Undifferentiated State
Green	Conservation Easements	Dark Blue	State Trust Lands
Yellow	US Bureau of Land Management	Blue	Montana Fish, Wildlife & Parks
Light Green	US Bureau of Reclamation	Light Blue	State - University, Institutions, MDT
Orange	US Fish and Wildlife Service	Dark Blue	DNR/C (Water Project Lands)
Light Green	National Park Service	Grey	Local Government
Light Green	US Forest Service	Light Blue	US Bureau of Indian Affairs Trust Lands
Light Green	USDA (Ag Research Stations)	Yellow	Tribal Lands
Light Green	Army Corps of Engineers	Orange	Plum Creek Timber Company
Light Green	Other Department of Defense	Red	Private Land Trusts

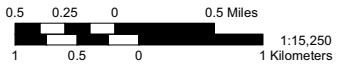
**Quad Code - 4611322**  
**Quad Name - Silver Lake**

The MNHP wetland and riparian mapping has gone through two stages of internal review. It has been field verified and approved by the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI). Finalized mapping is available for download from the USFWS as well as from NRIIS.

The wetland and riparian mapping is not an exhaustive or comprehensive inventory of wetland and riparian areas within the mapping boundary. Field verification of the absence or presence of wetland and riparian areas will always be an important obligation of users of our data. Additionally, the NWI definition of a wetland is more inclusive than the definition of a jurisdictional wetland, and thus the wetland boundaries shown in our dataset cannot substitute for boundaries mapped in a wetland delineation.

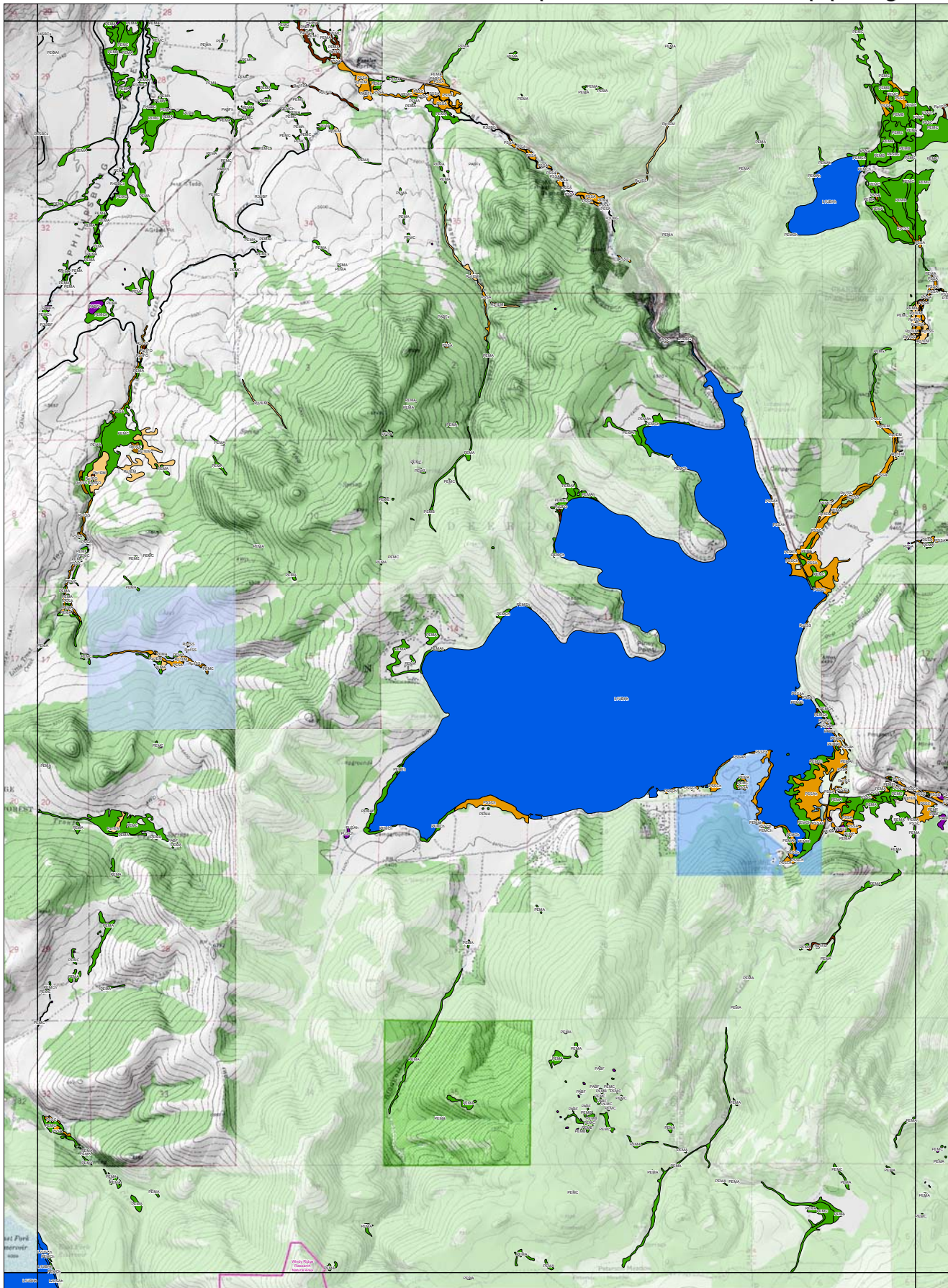
Wetland and Riparian mapping is mapped to the RGDC and USFWS National Wetland Inventory standards using the 2005 NAIP imagery at a 1:2,000 scale. Thus, the data are intended for use in publications, at a scale of 1:12,000 or smaller. Due to the scale, the primary intended use is for regional and watershed data display and analysis, rather than specific project data analysis. The map products were neither designed nor intended to represent legal or regulatory products.

Data Sources: The stewardship data was created by the Montana Natural Heritage Program. All other data layers in this map were obtained from the Montana GIS Portal which is maintained by NRIIS.





# Provisional Wetland and Riparian Area Mapping



**Wetland and Riparian Mapping**

	Lacustrine
	Freshwater Pond
	Freshwater Emergent Wetland
	Freshwater Shrub Wetland
	Freshwater Forested Wetland
	Riverine
	Riparian Emergent
	Riparian Shrub
	Riparian Forested

**Ownership**

	Special Designations		Undifferentiated State
	Conservation Easements		State Trust Lands
	US Bureau of Land Management		Montana Fish, Wildlife & Parks
	US Bureau of Reclamation		State - University, Institutions, MDT
	US Fish and Wildlife Service		DNR (Water Project Lands)
	National Park Service		Local Government
	US Forest Service		US Bureau of Indian Affairs Trust Lands
	USDA (Ag Research Stations)		Tribal Lands
	Army Corps of Engineers		Plum Creek Timber Company
	Other Department of Defense		Private Land Trusts

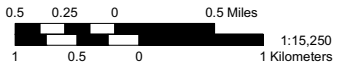
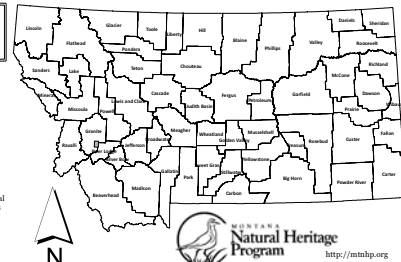
Quad Code - 4611323  
 Quad Name - Georgetown Lake

MTNHP provisional wetland mapping has gone through two stages of internal review, but has not been field verified or approved by the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI). Interested parties are encouraged to obtain the most current information possible from MTNHP, rather than using other products.

The provisional wetland mapping is not an exhaustive or comprehensive inventory of wetland and riparian areas within the mapping boundary. Field verification of the absence or presence of wetland and riparian areas will always be an important obligation of users of our data. Additionally, the NWI definition of a wetland is more inclusive than the definition of a jurisdictional wetland, and thus the wetland boundaries shown in our dataset cannot substitute for boundaries mapped in a wetland delineation.

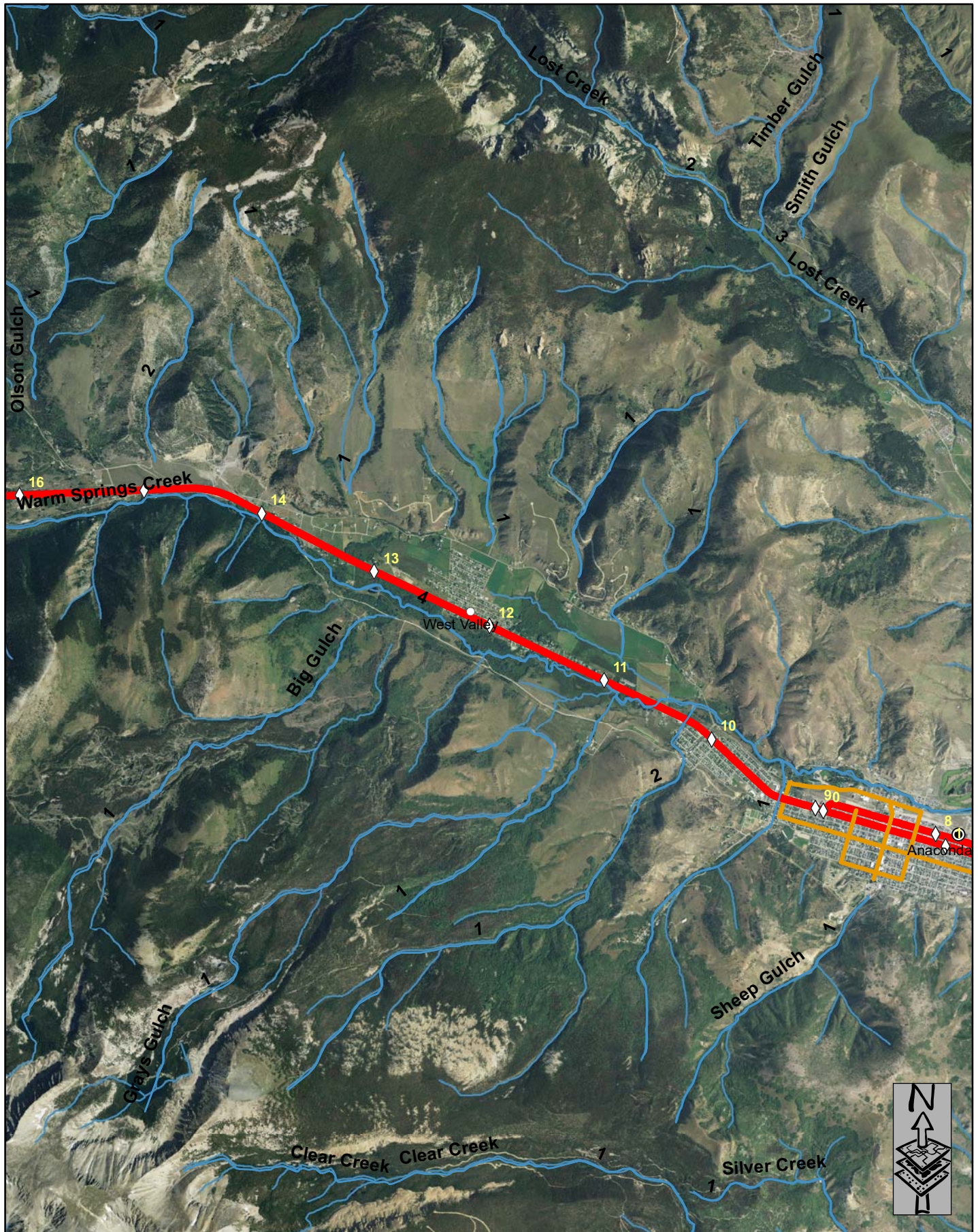
Wetland and Riparian mapping is mapped to the FGDC and USFWS National Wetland Inventory standards using the 2005 NAD imagery at a 1:24,000 scale. Thus, the data are intended for use in publications, at a scale of 1:12,000 or smaller. Due to the scale, the primary intended use is for regional and watershed data display and analysis, rather than specific project data analysis. The map products were neither designed nor intended to represent legal or regulatory products.

Data Sources: The stewardship data was created by the Montana Natural Heritage Program. All other data layers in this map were obtained from the Montana GIS Portal which is maintained by NHRP.



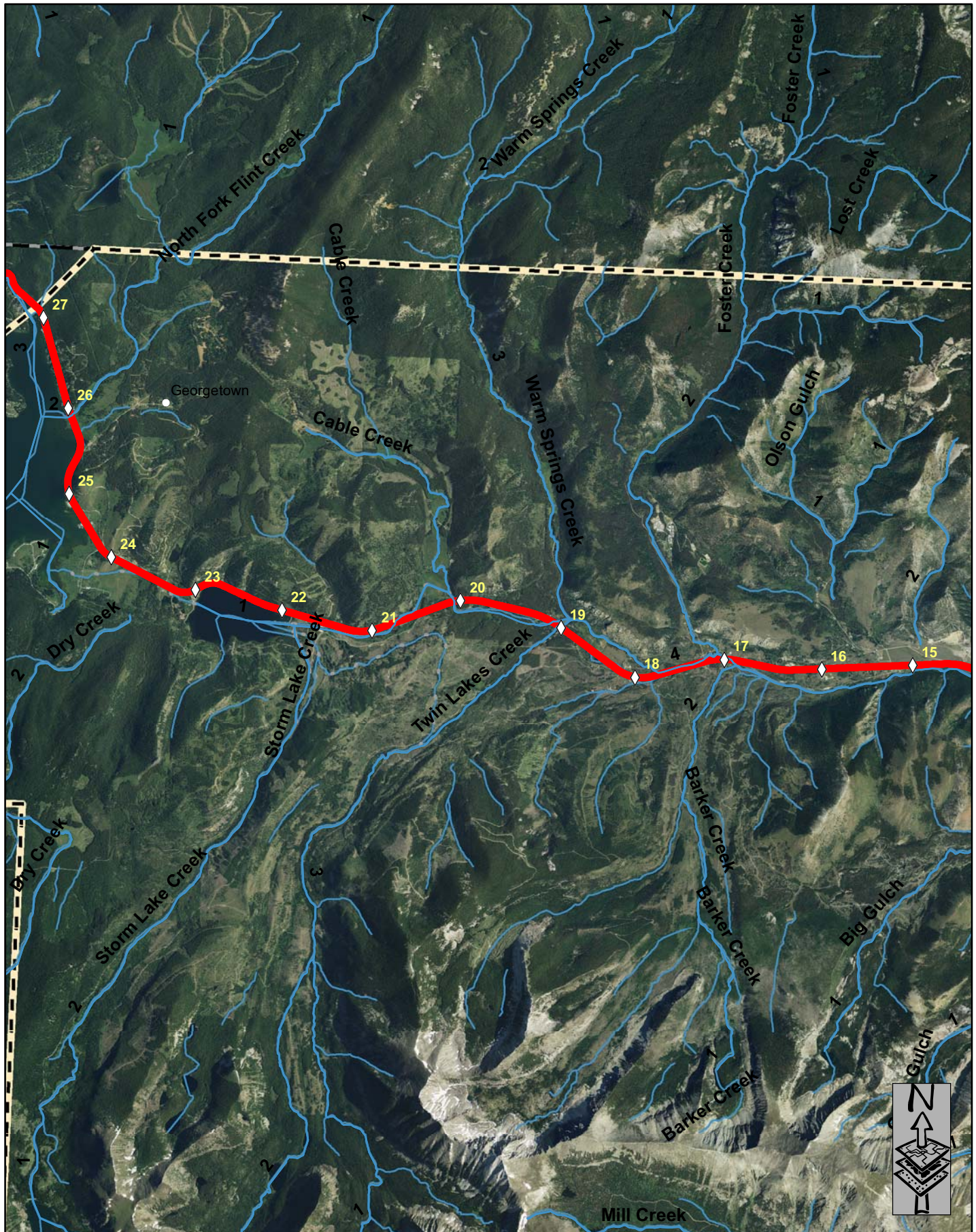


MT1- Anaconda to Georgetown Lake Corridor Study  
Phase 1 RP 10.5 to RP 14.5  
Streams and other Waterbodies





MT1- Anaconda to Georgetown Lake Corridor Study  
Phase II RP 14.5 to RP 27.5  
Streams and other Waterbodies





Warm Springs Creek  
**River Mile:** 0 to 32.6  
**Miles:** 32.6  
**Total Stream Miles:** 32.6  
**HUC:** Upper Clark Fork (17010201)  
**Tributary To:** Clark Fork River  
**Regions:** Region 2  
**Counties:** Deer Lodge; Granite

**Fish Distribution**

[Download Data](#)

Begin Mile	End Mile	Species	Abundance	Use Type	Life History	Origin	Genetic Status	Data Rating	Data Source
13.1	29.4	Brook Trout	Rare	Year-round resident	Not applicable	Introduced	Not Applicable	Extrapolated from multiple surveys/observations	FWP
14	28.4	Brook X Bull Trout hybrid	Rare	Year-round resident	Not applicable	Not applicable	Not Applicable	Extrapolated from multiple surveys/observations	FWP
0	18.2	Brown Trout	Abundant	Both resident and Fluvial/Adfluvial populations	Not applicable	Introduced	Not Applicable	Extrapolated from multiple surveys/observations	FWP
18.2	24.4	Brown Trout	Rare	Unknown	Not applicable	Introduced	Not Applicable	Extrapolated from a single survey/observation	FWP
12.3	24.4	Bull Trout	Rare	Unknown	Not applicable	Native	Unknown	Extrapolated from multiple surveys/observations	FWP
24.4	24.4	Bull Trout	Rare	Year-round resident	Not applicable	Native	Unknown	Extrapolated from multiple surveys/observations	FWP
24.4	32.6	Bull Trout	Unknown	Year-round resident	Not applicable	Native	Genetically pure, determined by genetic analysis	Extrapolated from multiple surveys/observations	FWP
0	22.3	Longnose Sucker	Abundant	Year-round resident	Not applicable	Native	Not Applicable	No Survey, Professional judgment	FWP
0	12.9	Mountain Whitefish	Rare	Year-round resident	Not applicable	Native	Not Applicable	No Survey, Professional judgment	FWP
0	11.6	Rainbow Trout	Rare	Year-round resident	Not applicable	Introduced	Not Applicable	Extrapolated from multiple surveys/observations	FWP
11.6	25	Rainbow Trout	Common	Year-round resident	Resident	Introduced	Not Applicable	Extrapolated from multiple surveys/observations	fwp
24.4	32.6	Sculpin	Unknown	Year-round resident	Not applicable	Native	Not Applicable	Extrapolated from a single survey/observation	FWP
0	26.1	Slimy Sculpin	Common	Year-round resident	Resident	Native	Not Applicable	Extrapolated from multiple	FWP

									surveys/observations	
0	4	Westslope Cutthroat Trout	Rare	Year-round resident	Resident	Native	Potentially hybridized with records of contaminating species	Extrapolated from multiple surveys/observations	FWP	
9.4	10.7	Westslope Cutthroat Trout	Rare	Year-round resident	Resident	Native	Potentially hybridized with records of contaminating species	Extrapolated from multiple surveys/observations	FS	
10.7	15.3	Westslope Cutthroat Trout	Rare	Year-round resident	Resident	Native	Potentially hybridized with records of contaminating species	Extrapolated from multiple surveys/observations	FS	
15.3	24.5	Westslope Cutthroat Trout	Rare	Year-round resident	Resident	Native	Potentially hybridized with records of contaminating species	Extrapolated from multiple surveys/observations	FS	
24.5	32.5	Westslope Cutthroat Trout	Common	Year-round resident	Resident	Native	Genetically pure, determined by genetic analysis	Extrapolated from multiple surveys/observations	FS	
13.1	24.1	Westslope X Rainbow	Abundant	Year-round resident	Resident	Not applicable	Not Applicable	Extrapolated from multiple surveys/observations	fwp	

**Population Surveys**

[Download Data](#)

<b>Section: QUAN1</b>												
<b>River Miles: 0 to 0.1</b>												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
7/22/1991	Tohtz, Joel	Brown Trout	200	per 1000 ft.	Multi-pass, maximum likelihood	-	-	-	N/A	Backpack shocking	Medium quality	FWP
7/24/1990	Tohtz, Joel	Brown Trout	410	per 1000 ft.	Multi-pass, maximum likelihood	-	-	-	N/A	Backpack shocking	Medium quality	FWP
11/8/1989	Tohtz, Joel	Brown Trout	212	per 1000 ft.	Multi-pass, maximum likelihood	-	-	-	N/A	Backpack shocking	Medium quality	FWP
<b>Section: QUAN2</b>												
<b>River Miles: 0 to 0.1</b>												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
10/1/1991	Tohtz, Joel	Brown Trout	142	per 1000 ft.	Multi-pass, maximum	-	-	-	N/A	Backpack shocking	Medium quality	FWP



					likelihood							
7/23/1991	Tohtz, Joel	Brown Trout	236	per 1000 ft.	Multi-pass, maximum likelihood	-	-	-	N/A	Backpack shocking	Medium quality	FWP
7/25/1990	Tohtz, Joel	Brown Trout	261	per 1000 ft.	Multi-pass, maximum likelihood	-	-	-	N/A	Backpack shocking	Medium quality	FWP
11/12/1989	Tohtz, Joel	Brown Trout	329	per 1000 ft.	Multi-pass, maximum likelihood	-	-	-	N/A	Backpack shocking	Medium quality	FWP

**Section: Wildlife Management Area**  
**River Miles: 3.4 to 3.5**

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
10/2/2008	Lindstrom, Jason	Brown Trout	553	no estimate, counts only	Total number captured or presence only	63	521	211.6	mm	Electrofishing	Medium quality	FWP
10/2/2008	Lindstrom, Jason	Westslope X Rainbow	1	no estimate, counts only	Total number captured or presence only	-	-	250	mm	Electrofishing	Medium quality	FWP
9/25/2008	Lindstrom, Jason	Brown Trout	535	no estimate, counts only	Total number captured or presence only	65	531	211.9	mm	Electrofishing	Medium quality	FWP
9/14/2007	Lindstrom, Jason	Brown Trout	552	no estimate, counts only	Total number captured or presence only	68	509	215.9	mm	Electrofishing	Good quality	FWP
9/14/2007	Lindstrom, Jason	Westslope Cutthroat Trout	1	no estimate, counts only	Total number captured or presence only	-	-	168	mm	Electrofishing	Good quality	FWP
9/6/2007	Lindstrom, Jason	Brown Trout	552	no estimate, counts only	Total number captured or presence only	61	542	218.7	mm	Electrofishing	Good quality	FWP
9/6/2007	Lindstrom, Jason	Westslope Cutthroat Trout	1	no estimate, counts only	Total number captured or presence only	-	-	364	mm	Electrofishing	Good quality	FWP
9/6/2007	Lindstrom, Jason	Westslope X Rainbow	1	no estimate, counts only	Total number captured or presence only	-	-	166	mm	Electrofishing	Good quality	FWP



Section: Section 32 - Lower Meanders												
River Miles: 9 to 9.1												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
9/19/2007	Lindstrom, Jason	Brown Trout	177	no estimate, counts only	Total number captured or presence only	71	437	191.3	mm	Electrofishing	Good quality	FWP
9/19/2007	Lindstrom, Jason	Rainbow Trout	1	no estimate, counts only	Total number captured or presence only	-	-	360	mm	Electrofishing	Good quality	FWP
9/19/2007	Lindstrom, Jason	Westslope X Rainbow	1	no estimate, counts only	Total number captured or presence only	-	-	312	mm	Electrofishing	Good quality	FWP
Section: Section 32 - Top Channelized												
River Miles: 9.9 to 10												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
9/19/2007	Lindstrom, Jason	Brown Trout	194	no estimate, counts only	Total number captured or presence only	63	419	125.7	mm	Electrofishing	Good quality	FWP
9/19/2007	Lindstrom, Jason	Rainbow Trout	1	no estimate, counts only	Total number captured or presence only	-	-	415	mm	Electrofishing	Good quality	FWP
Section: Below Meyers Dam												
River Miles: 18 to 18.1												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
9/21/2007	Lindstrom, Jason	Brook Trout	7	no estimate, counts only	Total number captured or presence only	150	234	190.7	mm	Electrofishing	Good quality	FWP
9/21/2007	Lindstrom, Jason	Brown Trout	371	no estimate, counts only	Total number captured or presence only	66	467	251.1	mm	Electrofishing	Good quality	FWP
9/21/2007	Lindstrom, Jason	Rainbow Trout	16	no estimate, counts only	Total number captured or presence only	132	423	300.6	mm	Electrofishing	Good quality	FWP



					only							
9/21/2007	Lindstrom, Jason	Westslope Cutthroat Trout	17	no estimate, counts only	Total number captured or presence only	77	398	227.4	mm	Electrofishing	Good quality	FWP
9/21/2007	Lindstrom, Jason	Westslope X Rainbow	11	no estimate, counts only	Total number captured or presence only	124	397	225.3	mm	Electrofishing	Good quality	FWP

**Section: N/A**  
**River Miles: 18.7 to 18.8**

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
9/2/1993	Gerdes, Steve	Bull Trout	1	no estimate, counts only	Total number captured or presence only	-	-	-	N/A	Backpack shocking	Medium quality	FS
9/2/1993	Gerdes, Steve	Westslope Cutthroat Trout	5	no estimate, counts only	Total number captured or presence only	6.5	8.5	-	in	Backpack shocking	Medium quality	FS

**Section: Garrity Game Check Station**  
**River Miles: 20.1 to 20.2**

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
9/20/2007	Lindstrom, Jason	Brook Trout	3	no estimate, counts only	Total number captured or presence only	144	240	180	mm	Electrofishing	Good quality	FWP
9/20/2007	Lindstrom, Jason	Brown Trout	8	no estimate, counts only	Total number captured or presence only	64	428	253.4	mm	Electrofishing	Good quality	FWP
9/20/2007	Lindstrom, Jason	Bull Trout	11	no estimate, counts only	Total number captured or presence only	69	323	186.6	mm	Electrofishing	Good quality	FWP
9/20/2007	Lindstrom, Jason	Rainbow Trout	15	no estimate, counts only	Total number captured or presence only	74	351	195.7	mm	Electrofishing	Good quality	FWP
9/20/2007	Lindstrom, Jason	Slimy Sculpin	21	no estimate, counts only	Total number captured or presence	50	110	70.7	mm	Electrofishing	Good quality	FWP



					only							
9/20/2007	Lindstrom, Jason	Westslope Cutthroat Trout	113	no estimate, counts only	Total number captured or presence only	52	370	192.2	mm	Electrofishing	Good quality	FWP
9/20/2007	Lindstrom, Jason	Westslope X Rainbow	25	no estimate, counts only	Total number captured or presence only	64	422	167.5	mm	Electrofishing	Good quality	FWP

**Section:** Below Confluence of Upper Forks  
**River Miles:** 22.2 to 22.3

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
7/5/2007	Lindstrom, Jason	Bull Trout	1	no estimate, counts only	Total number captured or presence only	-	-	240	mm	Electrofishing	Good quality	FWP
7/5/2007	Lindstrom, Jason	Westslope Cutthroat Trout	7	no estimate, counts only	Total number captured or presence only	53	210	164.4	mm	Electrofishing	Good quality	FWP

**Section:** N/A  
**River Miles:** 24.5 to 24.6

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
7/21/1993	Gerdes, Steve	Westslope Cutthroat Trout	24	no estimate, counts only	Total number captured or presence only	4.9	8.1	-	in	Backpack shocking	Medium quality	FS
7/17/1993	Gerdes, Steve	Brook Trout	1	no estimate, counts only	Total number captured or presence only	-	-	-	N/A	Backpack shocking	Medium quality	FS
7/17/1993	Gerdes, Steve	Bull Trout	3	no estimate, counts only	Total number captured or presence only	3.9	10.2	-	in	Backpack shocking	Medium quality	FS
7/17/1993	Gerdes, Steve	Westslope Cutthroat Trout	2	no estimate, counts only	Total number captured or presence only	5.5	11.3	-	in	Backpack shocking	Medium quality	FS
7/14/1993	Gerdes, Steve	Brook Trout	6	no estimate, counts only	Total number captured or presence only	2.8	8.1	-	in	Backpack shocking	Medium quality	FS



					only							
7/14/1993	Gerdes, Steve	Westslope Cutthroat Trout	5	no estimate, counts only	Total number captured or presence only	3	5.3	-	in	Backpack shocking	Medium quality	FS
7/12/1993	Gerdes, Steve	Westslope Cutthroat Trout	4	no estimate, counts only	Total number captured or presence only	3.4	6.7	-	in	Backpack shocking	Medium quality	FS

Section: N/A  
River Miles: 24.7 to 24.8

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
8/19/2009	Young, Michael	Brook Trout	3	no estimate, counts only	Total number captured or presence only	185	265	213.3	mm	Electrofishing	Medium quality	FS
8/19/2009	Young, Michael	Bull Trout	3	no estimate, counts only	Total number captured or presence only	95	155	120	mm	Electrofishing	Medium quality	FS
8/19/2009	Young, Michael	Sculpin	2	no estimate, counts only	Total number captured or presence only	65	90	77.5	mm	Electrofishing	Medium quality	FS
8/19/2009	Young, Michael	Westslope Cutthroat Trout	10	no estimate, counts only	Total number captured or presence only	145	350	251.5	mm	Electrofishing	Medium quality	FS

Section: Above Veronica Trail Road  
River Miles: 24.9 to 25

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
7/28/2008	Peterson, Doug	Brook Trout	2	no estimate, counts only	Total number captured or presence only	131	227	179	mm	Electrofishing	Good quality	FWP
7/28/2008	Peterson, Doug	Brook X Bull Trout hybrid	3	no estimate, counts only	Total number captured or presence only	140	223	182	mm	Electrofishing	Good quality	FWP
7/28/2008	Peterson, Doug	Bull Trout	1	no estimate, counts only	Total number captured or presence only	-	-	385	mm	Electrofishing	Good quality	FWP



					only							
7/28/2008	Peterson, Doug	Sculpin	11	no estimate, counts only	Total number captured or presence only	30	91	70.6	mm	Electrofishing	Good quality	FWP
7/28/2008	Peterson, Doug	Westslope Cutthroat Trout	4	no estimate, counts only	Total number captured or presence only	117	225	159	mm	Electrofishing	Good quality	FWP
9/4/2007	Lindstrom, Jason	Brook Trout	9	no estimate, counts only	Total number captured or presence only	66	201	146.3	mm	Electrofishing	Good quality	FWP
9/4/2007	Lindstrom, Jason	Rainbow Trout	1	no estimate, counts only	Total number captured or presence only	-	-	148	mm	Electrofishing	Good quality	FWP
9/4/2007	Lindstrom, Jason	Slimy Sculpin	11	no estimate, counts only	Total number captured or presence only	44	110	67.7	mm	Electrofishing	Good quality	FWP
9/4/2007	Lindstrom, Jason	Westslope Cutthroat Trout	16	no estimate, counts only	Total number captured or presence only	40	308	138.9	mm	Electrofishing	Good quality	FWP

**Section:** Warm Springs Creek (site 2)

**River Miles:** 27.5 to 27.6

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
7/28/2008	Peterson, Doug	Brook Trout	14	no estimate, counts only	Total number captured or presence only	74	246	145.5	mm	Electrofishing	Good quality	FWP
7/28/2008	Peterson, Doug	Brook X Bull Trout hybrid	2	no estimate, counts only	Total number captured or presence only	187	198	192.5	mm	Electrofishing	Good quality	FWP
7/28/2008	Peterson, Doug	Bull Trout	5	no estimate, counts only	Total number captured or presence only	149	419	260.2	mm	Electrofishing	Good quality	FWP
7/28/2008	Peterson, Doug	Westslope Cutthroat Trout	10	no estimate, counts only	Total number captured or presence only	52	311	141.9	mm	Electrofishing	Good quality	FWP



Section: Warm Springs Creek (site 5)												
River Miles: 28.4 to 28.5												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
7/29/2008	Peterson, Doug	Brook Trout	34	no estimate, counts only	Total number captured or presence only	64	235	133	mm	Electrofishing	Good quality	FWP
7/29/2008	Peterson, Doug	Bull Trout	16	no estimate, counts only	Total number captured or presence only	96	249	214.9	mm	Electrofishing	Good quality	FWP
7/29/2008	Peterson, Doug	Westslope Cutthroat Trout	1	no estimate, counts only	Total number captured or presence only	-	-	80	mm	Electrofishing	Good quality	FWP

Section: N/A												
River Miles: 28.5 to 28.6												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
8/19/2009	Young, Michael	Brook Trout	7	no estimate, counts only	Total number captured or presence only	125	255	177.9	mm	Electrofishing	Medium quality	FS
8/19/2009	Young, Michael	Bull Trout	2	no estimate, counts only	Total number captured or presence only	50	580	315	mm	Electrofishing	Medium quality	FS
8/19/2009	Young, Michael	Westslope Cutthroat Trout	5	no estimate, counts only	Total number captured or presence only	100	300	176	mm	Electrofishing	Medium quality	FS

Section: Warm Springs Creek (site 3)												
River Miles: 28.7 to 28.8												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
7/28/2008	Peterson, Doug	Brook Trout	10	no estimate, counts only	Total number captured or presence only	94	239	139.9	mm	Electrofishing	Good quality	FWP
7/28/2008	Peterson, Doug	Brook X Bull Trout hybrid	2	no estimate, counts only	Total number captured or presence	352	356	354	mm	Electrofishing	Good quality	FWP



					only							
7/28/2008	Peterson, Doug	Bull Trout	7	no estimate, counts only	Total number captured or presence only	221	259	239.7	mm	Electrofishing	Good quality	FWP
7/28/2008	Peterson, Doug	Westslope Cutthroat Trout	2	no estimate, counts only	Total number captured or presence only	132	141	136.5	mm	Electrofishing	Good quality	FWP

**Section: Warm Springs Creek (site 4)**

**River Miles: 28.9 to 29**

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
7/29/2008	Peterson, Doug	Brook Trout	16	no estimate, counts only	Total number captured or presence only	75	248	167.8	mm	Electrofishing	Good quality	FWP
7/29/2008	Peterson, Doug	Bull Trout	3	no estimate, counts only	Total number captured or presence only	229	236	233.7	mm	Electrofishing	Good quality	FWP
7/29/2008	Peterson, Doug	Westslope Cutthroat Trout	5	no estimate, counts only	Total number captured or presence only	105	293	176.4	mm	Electrofishing	Good quality	FWP

**Section: Below Bridge Crossing - Upper**

**River Miles: 29 to 29.1**

Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
9/4/2007	Lindstrom, Jason	Brook Trout	9	no estimate, counts only	Total number captured or presence only	93	303	195.6	mm	Electrofishing	Good quality	FWP
9/4/2007	Lindstrom, Jason	Brook X Bull Trout hybrid	1	no estimate, counts only	Total number captured or presence only	-	-	358	mm	Electrofishing	Good quality	FWP
9/4/2007	Lindstrom, Jason	Bull Trout	12	no estimate, counts only	Total number captured or presence only	208	232	218.9	mm	Electrofishing	Good quality	FWP
9/4/2007	Lindstrom, Jason	Westslope Cutthroat Trout	8	no estimate, counts only	Total number captured or presence only	104	265	156.8	mm	Electrofishing	Good quality	FWP



only												
Section: N/A												
River Miles: 32.5 to 32.6												
Date	Collector	Species	Est.	Sec. Unit	Method	Length				Gear	Data	
						Min	Max	Avg.	Unit		Rating	Source
8/19/2009	Young, Michael	Westslope Cutthroat Trout	36	no estimate, counts only	Total number captured or presence only	100	185	130.9	mm	Electrofishing	Medium quality	FS

**Genetic Samples**

[Download Data](#)

<b>Date:</b> 7/14/1993			
<b>Sample #:</b> 762			
<b>Collector:</b> Sanborn, Brian		<b>Target Species:</b> Bull Trout	
<b>River Miles:</b> 26.2 to 26.3		<b># of Fish:</b> 3	
<b>Analysis Type:</b> Allozymes		<b>Comments:</b>	
<b>Analyzer:</b> Leary, Robb			
Species Name	Percent	Count	Hybrid
Bull Trout	100	-	-
<b>Date:</b> 7/16/1986			
<b>Sample #:</b> 169			
<b>Collector:</b> Hadley, Wayne		<b>Target Species:</b> Westslope Cutthroat Trout	
<b>River Miles:</b> 30.7 to 30.8		<b># of Fish:</b> 21	
<b>Analysis Type:</b> Allozymes		<b>Comments:</b>	
<b>Analyzer:</b> Leary, Robb			
Species Name	Percent	Count	Hybrid
Westslope Cutthroat Trout	100	-	-

**Fish Stocking**

No Data Found

**Habitat Measurements**

[Download Data](#)

<b>Section:</b> Wildlife Management Area					
<b>River Miles:</b> 3.4 to 3.5					
Date	Time	Collector	Parameter	Value	Unit
9/25/2008		Lindstrom, Jason	Conductivity	326	µS/cm
9/25/2008		Lindstrom, Jason	Water Temp	7.6	Deg C
9/25/2008		Lindstrom, Jason	Water Temp	10.2	Deg C

**Bull Trout Core Areas**

Begin Mile	End Mile
2.673	32.6

**Bull Trout Node Areas**

Selection is not within a Bull Trout Node Area

**Angling Days Per Year**

[Download Data](#)

<b>River Miles:</b> 0 to 32.6								
Year	Total		Resident		Non Resident		Ranking	
	Days Fished(+S.D.)	Trips	Days Fished(+S.D.)	Trips	Days Fished(+S.D.)	Trips	State	Region



2007	3,739 (+- 1,381)	56	2,599 (+- 1,009)	37	1,140 (+- 943)	19	118	19
2005	1,912 (+- 545)	34	1,767 (+- 533)	32	145 (+- 116)	2	190	32
2003	6,183 (+- 1,747)	132	5,439 (+- 1,718)	116	744 (+- 316)	16	96	15
2001	7,206 (+- 2,649)	141	6,863 (+- 2,643)	130	343 (+- 164)	11	79	13
1999	5,842 (+- 1,479)	130	4,287 (+- 1,145)	101	1,555 (+- 936)	29	108	17

**Fisheries Resource Value**

[Download Data](#)

Begin Mile	End Mile	Sport Class	Habitat Class	Final Rating
0	22.3	3	1	Outstanding (1)
22.3	24.4	4	1	Outstanding (1)
24.4	32.6	3	1	Outstanding (1)

**Dewatered Concern Areas**

No Data Found

**FWP Instream Flow Protection/Quantification**

No Data Found

**FWP Water Leases**

No Data Found

**Protected Areas**

[Download Data](#)

<b>River Miles: 24.4 to 32.6</b>		
Protection Type	Reason (fish)	Reason (wildlife)
NWPPC Wildlife Protected Area	no data	Big game critical wintering/spring area

**Special Fishing Regulations**

No Data Found

**Stream Restoration Projects**

No Data Found

**FWP Management**

Begin Mile	End Mile	Region	District	Water Type
0	32.6	2	Western	Trout Water

**Fishing Logs**

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Quarters based on calendar year (example: qtr 1 is Jan - Mar)					
Year	Quarter	Log Number	Species	# Caught	Hours
2009	2	7177	Brown Trout	1	4
2009	2	7177	Rainbow Trout	3	4

**References**

[Download Data](#)

Author	Title	Year	Publisher	Repository ID
Berg, Rodney K.	Id, Survey And Inventory Of Coldwater Streams: Clark Fork / Blackfoot River Fishery Investigation, July 1, 1991 Through June 30, 1992; August 1992, Statewide Fisheries Investigations	1992	Montana Department of Fish, Wildlife, and Parks	<a href="#">17304</a>
Clancey, Pat, And Dan Downing	Madison River / Ennis Reservoir Fisheries And Madison River Drainage Westslope Cutthroat Trout Conservation And Restoration Program: 2000 Annual Report to PPL Montana and Turner Enterprises, Inc., Bozeman; April 2001	2001	Montana Fish, Wildlife & Parks, PPL Montana, Turner Enterprises, Inc.	<a href="#">17407</a>



Hadley, Wayne	Ib Segment 3, Survey And Inventory Of Coldwater Streams: West Central Montana Coldwater Stream Investigations, July 1, 1988 Through June 30, 1989; August 1989	1989	Montana Department of Fish, Wildlife, and Parks	<a href="#">34630</a>
Hadley, Wayne F.	Ia, Inventory And Survey Of The Upper Clark Fork And Blackfoot Rivers, July 1, 1986 To June 30, 1987; July 1987, western Montana Fishery Investigation	1987	Montana Department of Fish, Wildlife, and Parks	
Hagmann, Carol	Recreational Use Of The Upper Clark Fork River And Its Tributaries; June 1979	1979	Univ. of Montana, Wilderness Institute; Montana Fish and Game Department	<a href="#">17960</a>
Heaton, John R	I, Ii, Age And Growth Studies And Analysis Of Bottom Samples In Connection With Pollution Studies, May 1, 1959 To April 30, 1960; September 27, 1960, fishery Investigations Laboratory	1960	Montana Fish and Game Department	<a href="#">39468</a>
Hetrick, Nicholas J.	South Fork Of The Madison River Salmonid Escapement Study: Interim Report; July 12, 1994	1994	The Federation of Fly Fishers, The Montana Trout Foundation	<a href="#">17415</a>
Johnson, Howard E., And Carole L. Schmidt, Et Al.	Clark Fork Basin Project: Draft Status Report And Action Plan; August 1988 (with Agency Comments)	1988	Clark Fork Basin Project, Office of the Governor	<a href="#">17943</a>
Kcm, Inc.: Seattle, Washington	Montana Department Of Fish, Wildlife And Parks Ozone System Feasibility Study Washoe Park Trout Hatchery, final; January 1994	1994	Montana Department of Fish, Wildlife, and Parks	<a href="#">19362</a>
Knotek, Ladd	Review of Crucial Areas Project	2009		
Knudson, Ken	A Preliminary Assessment Of Impacts To The Trout Fishery - Upper Clark Fork River, Montana; July 1984	1984	Montana Department of Fish, Wildlife, and Parks	<a href="#">17963</a>
Kronberg, Chris	The Biological Effects Of Water Pollution In The Clark Fork River; 1983	1983	Univ. of Montana	<a href="#">28341</a>
Leary, Robb	Genetic Letter To Brian Sanborn, 5/17/1995	1995	University of Montana	
Leary, Robb	Genetic Letter To Wayne Hadley, 12/5/1986	1986	University of Montana	
Lindstrom, Jason	2008 data for 2009 MFISH updates	2009	Montana Department of Fish, Wildlife, and Parks	
Lindstrom, Jason	Data for 2008 MFISH update	2008	Montana Department of Fish, Wildlife, and Parks	
Montana Dept. Of Fish, Wildlife And Parks	Ic, Survey And Inventory Of Coldwater Streams: Upper Clark Fork River Trout Restoration, July 1, 1993 Through June 30, 1994, Statewide Fisheries Investigations	1994	Montana Department of Fish, Wildlife, and Parks	<a href="#">17418</a>
Montana Dept. Of Fish, Wildlife And Parks	Preliminary Endangerment Assessment: Effects Of Metals Contamination At Old Works Operable Unit On Aquatic Biota Of Warm Springs Creek, Montana; October 1988 ( Draft )	1988	Montana Department of Fish, Wildlife, and Parks	<a href="#">17962</a>
Montana Dept. Of Fish, Wildlife And Parks, Fisheries Division	FWP Annual Progress Report - Water Leasing Study; November 30, 1998	1998	Montana Department of Fish, Wildlife, and Parks	
Ostle, Bernard	Statistics In Research	1954	Ames, Iowa: Iowa State College Press	
	Ia, Inventories And Surveys Of The Upper Clark Fork River And Blackfoot Drainages, July 1, 1976		Montana Department	



Peters, Donald J.	To June 30, 1980; March 1980,western Montana Fishery Investigation	1980	of Fish, Wildlife, and Parks	
Peterson, Doug and Dan Brewer	Report of fish taken under Scientific Collector Permit SCP-22-08	2008		<a href="#">36782</a>
Phillips, Glenn R., Kurt Hill, And Ann B. Humphrey	Statewide Water Pollution Studies: Triennial Report 1984-86,pollution Control Information Series: Technical Report No. 6, October 1987	1987	Montana Department of Fish, Wildlife, and Parks	<a href="#">28929</a>
Roulson, Leanne H., Garcia And Associates, Bozeman, MT	Water Leases And Yellowstone Cutthroat Trout Fry Outmigration From Four Tributaries Of The Upper Yellowstone River, Project Year 2000; May 11, 2001. J5011	2001	Montana Department of Fish, Wildlife, and Parks	<a href="#">18019</a>
Rumsey, Scott	Regional Mris Updates 2000, 4/1/2000	2000	Montana Department of Fish, Wildlife, and Parks	
The Montana Bull Trout Scientific Group	Upper Clark Fork River Basin Bull Trout Status Report; June, 1995	1995	The Montana Bull Trout Restoration Team	<a href="#">34559</a>
Thomas, Ginger	Bull Trout In Montana; August, 1992, Status Report	1992	Montana Department of Fish, Wildlife, and Parks	<a href="#">19093</a>
Tohtz, Joel	Io, Survey And Inventory Of Coldwater Streams: Upper Clark Fork EPP, July 1, 1993 Through June 30, 1994, Statewide Fisheries Investigations	1994	Montana Department of Fish, Wildlife, and Parks	<a href="#">17424</a>
Tohtz, Joel	Io, Survey And Inventory Of Coldwater Streams: Upper Clark EPP, July 1, 1992 Through June 30, 1993, Statewide Fisheries Investigations	1993	Montana Department of Fish, Wildlife, and Parks	<a href="#">17501</a>
Tohtz, Joel	Io, Survey And Inventory Of Coldwater Streams: Upper Clark EPP, October 21, 1991 Through June 30, 1992; August 1992, Statewide Fisheries Investigations	1992	Montana Department of Fish, Wildlife, and Parks	<a href="#">17307</a>
Usfs Et Al	Wscet Assessment, 1/1/2003	2003	U.S. Forest Service	
Vashro, James E.	Ia, Inventories And Surveys Of The Upper Clark Fork And Blackfoot Rivers, July 1, 1977 To June 30, 1982; June 15, 1983,western Montana Fishery Investigation	1983	Montana Department of Fish, Wildlife, and Parks	
Vashro, James E.	Ia, Inventory And Surveys Of The Upper Clark Fork River, Blackfoot River And Rock Creek Drainages, July 1, 1982 To June 30, 1983; November 1, 1983,inventory Of Waters Of The Project Area	1983	Montana Department of Fish, Wildlife, and Parks	
Vashro, James, And Donald Peters	Ia, Inventories And Surveys Of The Upper Clark Fork River And Blackfoot Drainages, July 1, 1976 To June 30, 1977; September 1977,western Montana Fishery Investigation	1977	Montana Fish and Game Department	
Vincent, E. Richard	Whirling Disease Report, 1997-98; January 12, 2000,project 3860	2000	Montana Department of Fish, Wildlife, and Parks	<a href="#">29152</a>
Young, Michael	Report of fish taken under Scientific Collector Permit SCP-19-09 and SCP-19A-09	2009	U.S. Forest Service	<a href="#">43033</a>





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## 2010 Water Quality Information

### Water Information

<b>Waterbody Id</b>	MT76G002_011	<b>Water Type</b>	RIVER
<b>Name</b>	Warm Springs Creek	<b>Hydro Unit</b>	17010201 - Upper Clark Fork
<b>Size (Miles/Acres)</b>	14.7	<b>Basin</b>	Columbia
<b>Ecoregion</b>	Middle Rockies	<b>Watershed</b>	Upper Clark Fork
<b>County</b>	DEER LODGE, GRANITE	<b>Use Class</b>	A-1
<b>TMDL Planning Area</b>	Upper Clark Fork	<b>Trophic Status and Trend</b>	NA
<b>Location</b>	WARM SPRINGS CREEK, headwaters to Meyers Dam, T5N R12W S25		
<b>Water Quality Category</b>	4C - TMDLs are not required; no pollutant-related use impairment identified.		

### Beneficial Use Support Information

Use Name	Fully Supporting	Partially Supporting	Not Supporting	Threatened	Insufficient Information	Not Assessed
Agricultural	✓					
Aquatic Life		✓				
Cold Water Fishery		✓				
Drinking Water					✓	
Industrial	✓					
Primary Contact Recreation	✓					

### Impairment Information

Probable Causes	Probable Sources	Associated Uses	TMDL Completed
Physical substrate habitat alterations	Channelization Highway/Road/Bridge Runoff (Non-construction Related)	Aquatic Life Cold Water Fishery	NO

### Assessment Information

Assessment Type	Associated Uses	Confidence
BIOLOGICAL	Aquatic Life Cold Water Fishery	GOOD
HABITAT	Aquatic Life	GOOD
PHYSICAL/CHEMICAL	Agricultural Aquatic Life Cold Water Fishery Industrial Primary Contact Recreation	GOOD
Assessment Method	Associated Uses	
NA	NA	

### Comments

<b>Overall Assessment</b>	
WATERBODY: Clark Fork tributaries upstream of Little Blackfoot River	
Use	Comment



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**ASSESSMENT UNIT INFORMATION**

**Reporting Cycle:** 2010  
**Assessment Unit:** MT76G002\_011  
**Name:** Warm Springs Creek  
**Location Description:** WARM SPRINGS CREEK, headwaters to Meyers Dam, T5N R12W S25  
**Water Type:** RIVER  
**Size (Miles/Acres):** 14.74 MILES  
**Use Class:** A-1  
**Hydrologic Unit Code:** 17010201  
**Basin:** Columbia  
**Watershed:** Upper Clark Fork  
**County:** DEER LODGE CO, GRANITE CO  
**Ecoregion:** Middle Rockies  
**TMDL Planning Area:** Upper Clark Fork  
**HUC Name:** Upper Clark Fork

**MONITORING INFORMATION**

**Date Assessed:** 06/05/2006  
**Assessed By:** Strohmayer, Sheena  
**Next Scheduled Monitoring Date:**



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

CITATIONS

Citation	Location	Biological Data	Habitat Data	Chemistry Data
Spindler, John C. ; Brinck, Claiborne W. (1959), An Extensive Chemical, Physical, Bacteriological, & Biological Survey: Columbia River Drainage in Montana, Report No. 59-1	DEQ Metcalf Stacks	algae; fecal coliforms; macroinvertebrates; other bacteriological data		General; common ions, pH, conductivity, miscellaneous; metals; quantitative physical data; toxicity tests
Environmental Protection Agency (1972), A Water Quality Study of the Upper Clark Fork River and Selected Tributaries	DEQ Metcalf Stacks	fish; macroinvertebrates		metals; quantitative physical data; toxicity tests
Botz, Maxwell K. ; Casne, Edward W. (1975), Water Quality Inventory and Management Plan: Upper Clark Fork Basin, Montana	DEQ Metcalf Stacks		Land use; riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data
Bahls, Loren L. ; Ingman, Gary L. (1979), An Assessment of Mining Impacts on Quality of Surface Waters in the Flint Creek Range, Montana	DEQ Metcalf Stacks	algae; macroinvertebrates	riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data
Knudson, Ken (1984), Preliminary Assessment of Impacts to the Trout Fishery- Upper Clark Fork River, Montana	DEQ Metcalf Stacks	fish		common ions, pH, conductivity, miscellaneous; metals; toxicity tests
Unknown (1985), Montana Interagency Stream Fishery Data for the Upper Clark Fork HUC	DEQ PPA Data Archive	algae; fish; other bacteriological data	riparian &/or instream surveys & physical features	quantitative physical data
Montana Department of Fish, Wildlife, and Parks (1986), Application for Reservations of Water in the Upper Clark Fork River Basin	DEQ Metcalf Stacks	fish; wildlife	riparian &/or instream surveys & physical features	quantitative physical data



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

Citation	Location	Biological Data	Habitat Data	Chemistry Data
Phillips, Glenn R. ; Hill, Kurt ; Humphrey, Ann B. (1987), Statewide Water Pollution Studies Triennial Report, 1984-1986, Pollution Control Information Series, Technical Report No. 6	DEQ Metcalf Stacks	fish	riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; metals; quantitative physical data; toxicity tests
Bahls, Loren L. (1988), Montana Nonpoint Source Assessment Report	DEQ Metcalf Stacks	algae; other bacteriological data	Land use; riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; major nutrients; quantitative physical data
Montana Department of Fish, Wildlife, and Parks (1991), Dewatered Streams List, 1991	DEQ Metcalf Stacks		riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; quantitative physical data
Montana Department of Natural Resources and Conservation (1991), Upper Clark Fork Basin Water Reservation Applications: Final Environmental Impact Statement	DEQ Metcalf Stacks	fish	riparian &/or instream surveys & physical features	major nutrients; metals; quantitative physical data
Ingman, Gary L. (1992), Assessment of Phosphorus and Nitrogen Sources in the Clark Fork River Basin	DEQ Metcalf Stacks			major nutrients; quantitative physical data
Thomas, Ginger (1992), Status Report : Bull Trout in Montana	DEQ Metcalf Stacks	fish	riparian &/or instream surveys & physical features	quantitative physical data
Weber, Erich E. (1993), An Assessment of Biological Integrity and Impairment of Aquatic Life in the Clark Fork River and its Major Tributaries Based on the Structure and Composition of Algae Associations in the Periphyton Community August 1991 & 1992	DEQ Metcalf Stacks	algae		



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

Citation	Location	Biological Data	Habitat Data	Chemistry Data
Lambing, John H. ; Hornberger, Michelle I. ; Axtmann, Ellen V. ; Pope, Daniel F. (1994), Water-Quality, Bed-Sediment, and Biological Data (October 1992 through September 1993) and Statistical Summaries of Water-Quality Data (March 1985 through September 1993) for Streams in the Upper Clark Fork Basin, Montana, Open-File Report 94-375	DEQ Metcalf Stacks			benthic sediment data; common ions, pH, conductivity, miscellaneous; metals; quantitative physical data
Environmental Science and Engineering, Inc. (1995), Anaconda Regional Water and Waste Operable Unit Final Draft Remedial Investigation Report: Section 3	DEQ Metcalf Stacks		riparian &/or instream surveys & physical features	benthic sediment data; common ions, pH, conductivity, miscellaneous; metals; quantitative physical data
Hornberger, Michelle I. ; Lambing, John H. ; Luoma, Samuel N. ; Axtmann, Ellen V. (1997), Spatial and Temporal Trends of Trace Metals in Surface Water, Bed Sediment, and Biota of the Upper Clark Fork Basin, Montana, 1985-95, Open-File Report 97-669	DEQ Metcalf Stacks			benthic sediment data; bioaccumulation; common ions, pH, conductivity, miscellaneous; metals; quantitative physical data; toxicity tests
(1997), Pre 1997 Field Assessments	Assessment Record	algae; chlorophyll; fecal coliforms; fish; macroinvertebrates	Land use; photo points; riparian &/or instream surveys & physical features	Rosgen type; benthic sediment data; bioaccumulation; common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data
Dodge, Kent A. ; Hornberger, Michelle I. ; Axtmann,	DEQ Metcalf Stacks			benthic sediment data;



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

Citation	Location	Biological Data	Habitat Data	Chemistry Data
Ellen V. (1998), Water-Quality, Bed-Sediment, and Biological Data (October 1996 through September 1997) and Statistical Summaries of Data for Streams in the Upper Clark Fork Basin, Montana, Open-File Report 98-407				common ions, pH, conductivity, miscellaneous; metals; quantitative physical data; toxicity tests
Lambing, John H. (1998), Estimated 1996-97 and Long-Term Average Annual Loads for Suspended Sediment and Selected Trace Metals in Streamflow of the Upper Clark Fork Basin from Warm Springs to Missoula, Montana, Water-Resources Investigations Report 98-4137	DEQ Metcalf Stacks			benthic sediment data; common ions, pH, conductivity, miscellaneous; metals; quantitative physical data
Shields, Ronald R. ; White, Melvin K. ; Ladd, Patricia B. ; Chambers, Clarence L. ; Dodge, Kent A. (1998), Water Resources Data: Montana Water Year 1997, USGS Water-Data Report MT-97-1	DEQ Metcalf Stacks	fish		benthic sediment data; common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data
Montana Department of Fish, Wildlife, and Parks (1999), Montana Rivers Information System (MRIS)	Assessment Record	algae; fish; macroinvertebrates; wildlife	Land use; riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; quantitative physical data
Reiland, Eric William ; Suplee, Michael W. (1999), Completed and Projected Fisheries Improvement Projects in the Upper Clark Fork Basin: Personal Communication with Mike Suplee on 7/06/1999	Assessment Record		riparian &/or instream surveys & physical features	Rosgen type
Reiland, Eric William (1999), Completed and Current Assessment Record Fish Habitat Restoration Projects	Assessment Record	fish	riparian &/or instream surveys & physical features	

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

Citation	Location	Biological Data	Habitat Data	Chemistry Data
U.S. Geological Survey (199n), USGS Water Data for the Nation - NWIS	Assessment Record	algae; chlorophyll; fecal coliforms; fish; other bacteriological data	Land use; riparian &/or instream surveys & physical features	benthic sediment data; bioaccumulation; common ions, pH, conductivity, miscellaneous; major nutrients; metals; organics; quantitative physical data
Environmental Protection Agency (2000), Montana View (MTView)	Assessment Record	chlorophyll; fecal coliforms; fish		bioaccumulation; common ions, pH, conductivity, miscellaneous; major nutrients; metals; organics; quantitative physical data
U.S. Geological Survey (2001), Quarterly Report of Activities for Long-Term Clark Fork Monitoring Program: April 1998 through September 2001	DEQ PPA Data Archive		riparian &/or instream surveys & physical features	benthic sediment data; common ions, pH, conductivity, miscellaneous; metals; quantitative physical data
Berscheid, Jolene (2006), STORET/Storease Data Archive [Electronic Resource]	DEQ Metcalf Multimedia Case	General; algae; chlorophyll; fecal coliforms; fish; macroinvertebrates; other bacteriological data	General; Land use; riparian &/or instream surveys & physical features	General; Rosgen type; benthic sediment data; common ions, pH, conductivity, miscellaneous; imagery data; major nutrients; metals; organics; quantitative physical data
(nnnn), USFS Field Data	Assessment Record	chlorophyll; fish;	Land use; photo	Rosgen type; benthic



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

Citation	Location	Biological Data	Habitat Data	Chemistry Data
		macroinvertebrates	points; riparian &/or instream surveys & physical features	sediment data; common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data

Comments: Only format in c-s linkage

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**DATA MATRIX**  
Biological Data

Comments:

Near Clay Charlie Gulch (Lower Warm Springs campground)

Data Type	Comments	Catalog Number	Citation
algae	(DR8 Citation: Roberts, M. 1991. Montana Dept. of Environmental Quality Field Assessment.) General observations of stream algae: No algal or macrophyte growth observed	Common.General.DR 8	(1997), Pre 1997 Field Assessments
fish	Fish Population sampling 1983: A few bull trout and numerous westslope cutthroat trout. Juveniles of all species present. Cutthroat over 6" = 502 fish/mile	Columbia.General.wr 062	Montana Department of Fish, Wildlife, and Parks (1986), Application for Reservations of Water in the Upper Clark Fork River Basin
fish	Bull trout in Warm Springs Creek: Resident population of bull trout present	Columbia.General.fh7 88	Thomas, Ginger (1992), Status Report : Bull Trout in Montana

Between Foster Creek and Meyers dam

Data Type	Comments	Catalog Number	Citation
algae	(DR8 Citation: Roberts, M. 1991. Montana Dept. of Environmental Quality Field Assessment.) General observations of stream algae: Aquatic plant life common but normal for the stream	Common.General.DR 8	(1997), Pre 1997 Field Assessments
fish	(DR8 Citation: Montana Dept. of Fish, Wildlife and Parks. 1992. Montana Rivers Information System (MRIS) Database.) Fish Population Sampling 1989-93: Brown trout population ranges from 142-410 fish/1000ft. (750-2165 fish/mile)	Common.General.DR 8	Montana Department of Fish, Wildlife, and Parks (1999), Montana Rivers Information System (MRIS)

Headwaters

Data Type	Comments	Catalog Number	Citation
algae	(DR8 Citation: Roberts, M. 1991. Montana Dept. of Environmental Quality Field Assessment.) General	Common.General.DR 8	(1997), Pre 1997 Field Assessments



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Data Type	Comments	Catalog Number	Citation
	observations of stream algae: No algal or macrophyte growth observed		

**Near Barker and Foster Creek**

Data Type	Comments	Catalog Number	Citation
fish	(DR8 Citation: Montana Dept. of Fish, Wildlife and Parks. 1992. Montana Rivers Information System (MRIS) Database.) Fish Population Sampling 1989-93: Westslope cutthroat; 95t/1000ft (502 fish/mile)	Common.General.DR 8	Montana Department of Fish, Wildlife, and Parks (1999), Montana Rivers Information System (MRIS)

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**DATA MATRIX**

**Habitat Data**

**Comments:**

Near Clay Charlie Gulch (Lower Warm Springs campground)

<b>Data Type</b>	<b>Comments</b>	<b>Catalog Number</b>	<b>Citation</b>
riparian &/or instream surveys & physical features	(DR8 Citation: Roberts, M. 1991. Montana Dept. of Environmental Quality Field Assessment.) Instream and riparian assessment 1991: Overall, impacts from use minimal.	Common.General.DR 8	(1997), Pre 1997 Field Assessments
<b>Between Foster Creek and Meyers dam</b>			
<b>Data Type</b>	<b>Comments</b>	<b>Catalog Number</b>	<b>Citation</b>
riparian &/or instream surveys & physical features	(DR8 Citation: Roberts, M. 1991. Montana Dept. of Environmental Quality Field Assessment.) Instream and riparian assessment 1991: Bank instability along frontage road, riparian area disturbed and removed in the proximity of Highway 10A, channelization has led to a lack of pools.	Common.General.DR 8	(1997), Pre 1997 Field Assessments
<b>Headwaters</b>			
<b>Data Type</b>	<b>Comments</b>	<b>Catalog Number</b>	<b>Citation</b>
riparian &/or instream surveys & physical features	(DR8 Citation: Roberts, M. 1991. Montana Dept. of Environmental Quality Field Assessment.) Instream and riparian assessment 1991: SMZ's appeared in good condition; lodgepole pine regeneration good.	Common.General.DR 8	(1997), Pre 1997 Field Assessments
<b>Near Barker and Foster Creek</b>			
<b>Data Type</b>	<b>Comments</b>	<b>Catalog Number</b>	<b>Citation</b>
photo points	(DR8 Citation: Roberts, M. 1991. Montana Dept. of Environmental Quality Field Assessment.) Photos of Warm Springs Creek 1991: Stream flow adjacent to	Common.General.DR 8	(1997), Pre 1997 Field Assessments



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Data Type	Comments	Catalog Number	Citation
	road with road fill eroding into stream		

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**DATA MATRIX**  
Chemistry Data

Comments:

**Near Clay Charlie Gulch (Lower Warm Springs campground)**

Data Type	Comments	Catalog Number	Citation
common ions, pH, conductivity, miscellaneous	Common ions, pH, TSS: Nothing of note. Single highest suspended sediment was 20.5 mg/L (OK)	Common.General.DR 8	(nnnn), USFS Field Data
metals	Metals 1975-82 Forest Service: No metals exceed standards	Common.General.DR 8	(nnnn), USFS Field Data
quantitative physical data	Requested flows: FW&P's requested 31-50 CFS to maintain fishery and water quality of CFR	Columbia.General.wr 062	Montana Department of Fish, Wildlife, and Parks (1986), Application for Reservations of Water in the Upper Clark Fork River Basin

**Between Foster Creek and Meyers dam**

Data Type	Comments	Catalog Number	Citation
metals	Metals 1975-82 Forest Service: No metals exceed standards	Common.General.DR 8	(nnnn), USFS Field Data
quantitative physical data	Requested flows: FW&P's requested 31-50 CFS to maintain fishery and water quality of CFR	Columbia.General.wr 062	Montana Department of Fish, Wildlife, and Parks (1986), Application for Reservations of Water in the Upper Clark Fork River Basin

**Near Barker and Foster Creek**

Data Type	Comments	Catalog Number	Citation
quantitative physical data	Requested flows: FW&P's requested 31-50 CFS to maintain fishery and water quality of CFR	Columbia.General.wr 062	Montana Department of Fish, Wildlife, and Parks (1986), Application for Reservations of Water in the Upper Clark Fork River Basin



Montana DEQ - Water Quality Standards Attainment Record

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**DATA EVALUATION**

Data Evaluation - Drinking Water

**SCD:**      No

**Comments**      Few metals data found, all were below criteria of detection. Given mining history of this valley, INSUFFICIENT DATA.

Score/Information	Category	Description
.	Print Comment	Comments only provided; no other data evaluation categories selected.

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**DATA EVALUATION**

Data Evaluation - Recreation

SCD:      Yes

Comments      Observations of dewatering, excess algal growth would have been made in field survey. SUFFICIENT DATA.

Score/Information	Category	Description
.	Print Comment	Comments only provided; no other data evaluation categories selected.



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**DATA EVALUATION**

**Data Evaluation - Aquatic Life & Fisheries (Streams) Biology Criteria**

**SCD:**      Yes      **Biological Score:**      2

**Comments**      Fisheries data, score of 2.

Score/Information	Category	Description
.	Print Comment	Comments only provided; no other data evaluation categories selected.

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**DATA EVALUATION**

**Data Evaluation - Aquatic Life & Fisheries (Streams) Chemistry Criteria**

**SCD:**      Yes      **Chemistry Score:**      2

**Comments**      Common ions and other data. Score of 2.

Score/Information	Category	Description
.	Print Comment	Comments only provided; no other data evaluation categories selected.



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**DATA EVALUATION**

Data Evaluation - Aquatic Life & Fisheries (Streams) Habitat Criteria

**SCD:**      Yes      **Habitat Score:**      3

**Comments**      DEQ field assessment from 1991, score of 3.

Score/Information	Category	Description
.	Print Comment	Comments only provided; no other data evaluation categories selected.

**Montana DEQ - Water Quality Standards Attainment Record**

**Reporting Cycle:** 2010      **Assessment Record:** MT76G002\_011      **Status:** Completed

**SUMMARY**

**Listing History 2006**

**Listing History 2008**

**Listing History 2010**

## Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

### Overall Condition of Segment

Site/Reach Name: Headwaters. Site/Reach Condition: No impairment. Site/Reach Name: Near Clay Charlie Gulch (Lower Warm Springs campground).  
Site/Reach Condition: No impairment. Site/Reach Name: Near Barker and Foster Creek. Site/Reach Condition: Moderate impairment. Comments: Road fill from adjacent frontage road is eroding into stream. Site/Reach Name: Between Foster Creek and Meyers dam. Site/Reach Condition: Moderate impairment. Comments: Bank instability along frontage road, riparian area disturbed and removed in the proximity of Highway 10A. Channelization. Aquatic Life & Cold Water Fishery: Problems with this reach are mainly habitat related (bank erosion, channelization, etc) and are focused near the lower end of the reach. Primary Contact (recreation): No indications of significant dewatering or algal blooms in this segment.



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**USE SUPPORT DECISION**

Use Class	A-1	Biology Score	2	Habitat Score	3	Chemistry Score	2	Total Score	7
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**Trophic Status:**

Trophic Trend:

Uses	SCD	Method, Data, and Information Used	Assessment Type and Confidence	Test Used	Use Support	Partial Use Support Flag	Use Support Threatened Certainty
Aquatic Life	Yes		BIOLOGICAL-GOOD, HABITAT-GOOD, PHYSICAL/CHEMICAL-GOOD		Not Supporting	Yes	No
Cold Water Fishery	Yes		BIOLOGICAL-GOOD, PHYSICAL/CHEMICAL-GOOD		Not Supporting	Yes	No
Agricultural	Yes		PHYSICAL/CHEMICAL-GOOD	NA	Fully Supporting	No	No
Industrial	Yes		PHYSICAL/CHEMICAL-GOOD	NA	Fully Supporting	No	No
Drinking Water	No			NA	Insufficient Information	No	No
Primary Contact Recreation	Yes		PHYSICAL/CHEMICAL-GOOD	NA	Fully Supporting	No	No

**ADB- Method Number and Description**

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**IMPAIRMENT INFORMATION**

Uses	Cause (Confidence): Source(Confirmed)	Observed Effects
Aquatic Life	344 (): 20 (N), 49 (N)	
Cold Water Fishery	344 (): 20 (N), 49 (N)	
Agricultural		
Industrial		
Drinking Water		
Primary Contact Recreation		

**ADB- Cause Number and Description      ADB- Source Number and Description      ADB- Observed Effect Number and Description**

344-Physical substrate habitat alterations	20-Channelization 49-Highway/Road/Bridge Runoff (Non-construction Related)	
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**DELISTINGS**

Cause	Delisting Reason	Delisting Date	Comments
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Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2010      Assessment Record: MT76G002\_011      Status: Completed

**CATEGORY INFORMATION**

**Previous Cycle**

**Cycle** 2008  
**Category** 4C - Identified threats or impairments result from pollution categories such as dewatering or habitat modification and, thus, the calculation of a Total Maximum Daily Load (TMDL) is not required  
**User Defined Category** N/A

**Current Cycle**

**Cycle** 2010  
**Category** 4C - Identified threats or impairments result from pollution categories such as dewatering or habitat modification and, thus, the calculation of a Total Maximum Daily Load (TMDL) is not required  
**User Defined Category** N/A