Photo 6: Possible spawning gravel.

Photo 7: Pool full of sediment, higher grade=exposed gravel.

Photo 8: Ideal channel, width/depth ratio.

Photo 9: End of project.

4.13 Nelson/Dana Spring Creek channel restoration (012-2005)

FFIP PROJECT & LAND USE MONITORING FORM

Project #:	012-05	Project Title:	Nelson/Dana Spring Creek channel restoration
Date:	7/6/2016	Evaluator:	Shannon Bockmon
Waterbody Name:	Yellowstone River	Project Type:	Enhance spawning

Riparian, channel re , bank stabilization, passage, (Some projects may have multiple types)

Land Use Information (all projects)

	Yes	No	Unk.	NA
Does the project have a signed project agreement?	✓			
Land use type (Livestock, Residential, Public, Recreational, Agriculture, Timber, Other)	Recreational			
Was a PFC assessment conducted?			✓	
Has the trend in riparian condition improved since last visited or last photo?	✓			
Is project in overall compliance with project agreement?	✓			
Comments				

Photo Points

Frame #	Lat	Long	Facing?	Scene description/Previous Photo
1	45.56682	-110.58350		Beaver dam (not in project area)
2	45.56523	-110.58254	DS	Start of project/stock water
3	45.56526	-110.58227		Gravel
4	45.56458	-110.58097	US	Undercut bank w/gravel and aquatic plants
5	45.56458	-110.58097	US	Aquatic plants
6	45.56411	-110.58083		Gravel
7	45.56294	-110.57862		Pond
8	45.56235	-110.57806	US	Spring entering pond from Nelson's property
9	45.56262	-110.57724	DS	More spawning gravel
10	45.55696	-110.58142	US	Nelson Spring Creek

Riparian (Fencing) Projects

Does the project agreement include grazing stipulations? (No, Exclosure, Grazing plan, Unk, NA)				
	Yes	No	Unk	NA
Was fencing installed to exclude livestock?	✓			
If fenced, is the fencing in functional condition?	✓			
If fenced, has grazing occurred within the fenced area?	✓			
If grazed, is grazing in compliance with submitted mngt plans?	✓			
Level of observed browsing on riparian shrubs. (None, Sparse, Moderate, Heavy, NA)	None			
Density of riparian shrubs present. (None, Sparse, Common, Abundant, NA)	None			
Age classes of riparian shrubs present. (None, One, Several, All, NA)	NA			
Channel Stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	Stable			
Channel Conditions? (Over-widened&shallow; Narrow&deep; Intermediate; Multi-thread)	Narrow/Deep			

Streambank Stabilization Projects

Current length of stream bank protected. (# Feet or Unknown)	
Type of stabilization used. (Root wads, Soil wrap, Willow plantings, Rip rap, Other-describe)	
Current condition of stream bank. (Stable, Unstable, Eroding, Percent stable/unstable)	
Has stream bank migrated. (No, Into stream, Into bank, Unknown)	
Is any infrastructure (fence, etc.) in danger of being compromised. (No, Yes-describe)	
Predominant bank angle within stabilization. (Under cut, 90°-45°, ~45°)	

Channel Restoration Projects

Channel stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	Stable
Channel Conditions? (Over-widened & shallow; Narrow & deep; Intermediate, Multi-thread)	Narrow/deep
Condition of habitat enhancement structures. (Stable, Eroding, NA)	Stable
Complexity of stream channel? (Pool-riffle, No pools, Wood forced pools, Lateral scour pools)	Lateral scour pools
Percent of stream reach in pools. (~total pool length/total stream length)	
Habitat enhancement structures involved? (LWD, Rootwads, Cross vanes, Other)	NA
Condition of habitat structures? (Stable, Eroded, Unknown)	NA

Comments:
(Existing land use?;Weeds?; Beneficial to fishery?; Public access?; Needs? What did we learn? ;etc.)
Beaver dam at mouth preventing passage up stream. Landowner stated that due to low flows of the Yellowstone River the dam was not blown out like previous years allowing cutthroat passage during spawning Wetland dried once water was diverted into channal Muskrat, Canada Thistle Horses (~5) do pasture here but very little evidence of hoof shear. (wouldn't show up on camera) Some aquatic plants within channel but with current flows it is enough to keep graveled areas open Nice undercut banks (did spot several fish using them) Windbreaks that were supposed to be planted, never took.

Land Owner Comments:	
Has this project been beneficial to you?	Yes
Has project improved stream/riparian conditions?	Yes
Effects on land use?	No
Weeds?	Yes
Noticable change in fishery?	Yes, but with the beaver dam it changed this year
Thoughts for future work?	Replant wind brakes

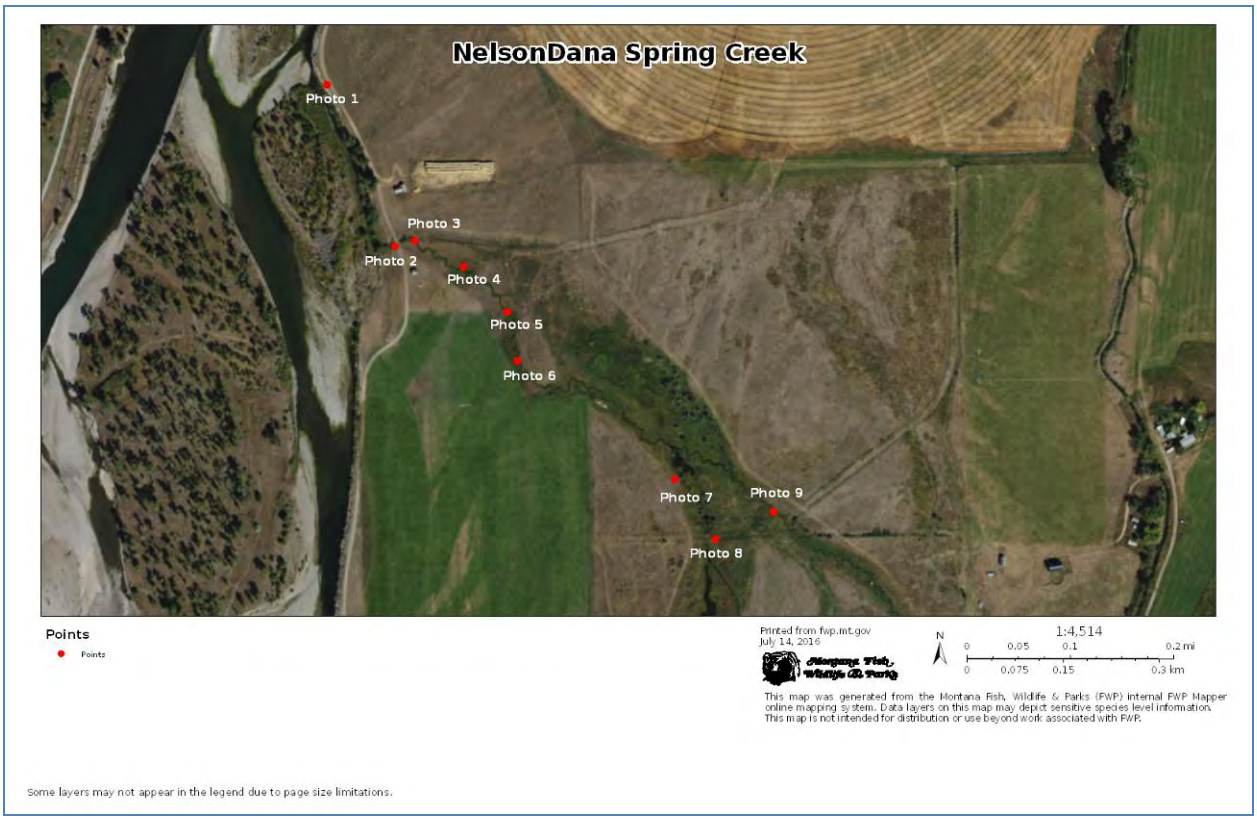


Photo 1: Beaver dam downstream (not within project area).

Photo 2: Start of project, Stock water.

Photo 3: Gravel and aquatic plants.

Photo 4: Undercut bank with gravel and aquatic plants visible.

Photo 5: Spawning gravel.

Photo 6: pond

Photo 8: Spring entering from Nelson's property.

Photo 9: More Spawning Gravel.

Photo 10: Nelson Spring Creek.

4.14 Piney Creek pool and habitat enhancement (033-2005 & 034-2009)

FFIP PROJECT & LAND USE MONITORING FORM

Project #:	034-09	Project Title:	Piney Creek habitat enhancement
Date:	7/21/2016	Evaluator:	Shannon Bockmon/Mike Ruggles
Waterbody Name:	Piney Creek	Project Type:	Habitat enhancement

Riparian, channel re bank stabilization, passage. (Some projects may have multiple types)

Land Use Information (all projects)

	Yes	No	Unk.	NA
Does the project have a signed project agreement?	✓			
Land use type (Livestock, Residential, Public, Recreational, Agriculture, Timber, Other)	Livestock			
Was a PFC assessment conducted?			✓	
Has the trend in riparian condition improved since last visited or last photo?	✓			
Is project in overall compliance with project agreement?	✓			
Comments				

Photo Points

Frame #	Lat	Long	Facing?	Scene description/Previous Photo
	get off mapper			

Riparian (Fencing) Projects

Does the project agreement include grazing stipulations? (No, Exclosure, Grazing plan, Unk, NA)				
	Yes	No	Unk	NA
Was fencing installed to exclude livestock?				
If fenced, is the fencing in functional condition?				
If fenced, has grazing occurred within the fenced area?				
If grazed, is grazing in compliance with submitted mngt plans?				
Level of observed browsing on riparian shrubs. (None, Sparse, Moderate, Heavy, NA)				
Density of riparian shrubs present. (None, Sparse, Common, Abundant, NA)				
Age classes of riparian shrubs present. (None, One, Several, All, NA)				
Channel Stability? (Stable, Unstable, Aggrading, Degrading, Unknown)				
Channel Conditions? (Over-widened&shallow; Narrow&deep; Intermediate; Multi-thread)				

Streambank Stabilization Projects

Current length of stream bank protected. (# Feet or Unknown)	
Type of stabilization used. (Root wads, Soil wrap, Willow plantings, Rip rap, Other-describe)	
Current condition of stream bank. (Stable, Unstable, Eroding, Percent stable/unstable)	
Has stream bank migrated. (No, Into stream, Into bank, Unknown)	
Is any infrastructure (fence, etc.) in danger of being compromised. (No, Yes-describe)	
Predominant bank angle within stabilization. (Under cut, 90°-45°, <45°)	

Channel Restoration Projects

Channel stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	
Channel Conditions? (Over-widened & shallow; Narrow & deep; Intermediate, Multi-thread)	
Condition of habitat enhancement structures. (Stable, Eroding, NA)	
Complexity of stream channel? (Pool-riffle, No pools, Wood forced pools, Lateral scour pools)	
Percent of stream reach in pools. (~total pool length/total stream length)	
Habitat enhancement structures involved? (LWD, Rootwads, Cross vanes, Other)	
Condition of habitat structures? (Stable, Eroded, Unknown)	

Comments:
(Existing land use?;Weeds?; Beneficial to fishery?; Public access?; Needs? What did we learn? ;etc.)
Pond has a high number of large healthy cutthroat. Irrigation standpipes are still in functioning condition. Shocked up stream from pond and took 50 DNA samples with the Billings FWP crew under Mike Ruggles. We could only spot shock some areas due to over growth. Log jams are still in working condition. Most now have nice pools forming due to debris from. Stream is very over grown in places and is hard to see some of the project areas.

Land Owner Comments:	
Has this project been beneficial to you?	
Has project improved stream/riparian conditions?	
Effects on land use?	
Weeds?	
Noticable change in fishery?	
Thoughts for future work?	

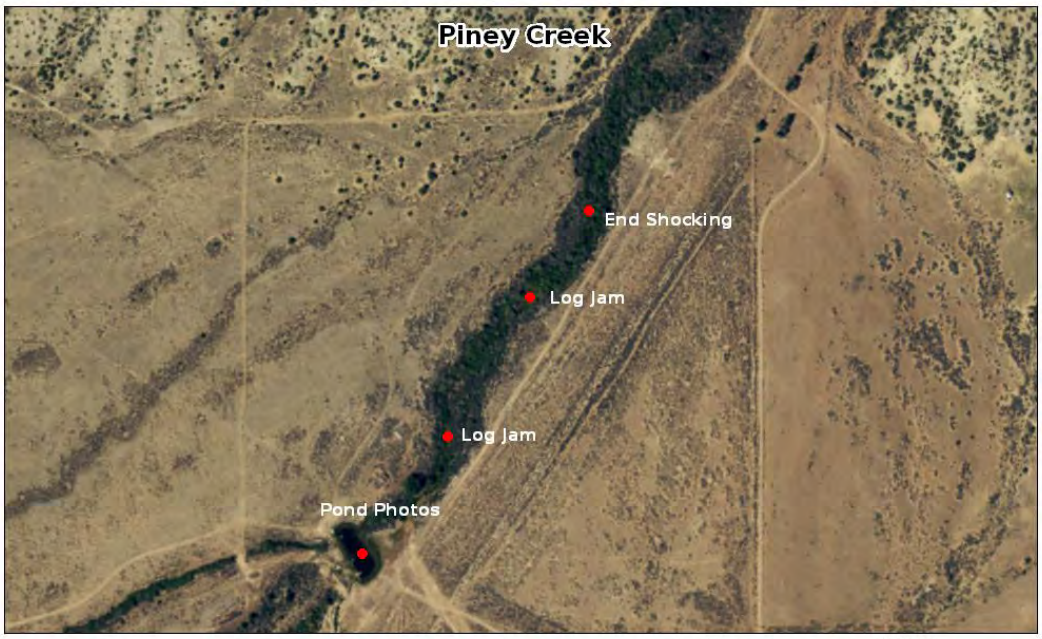
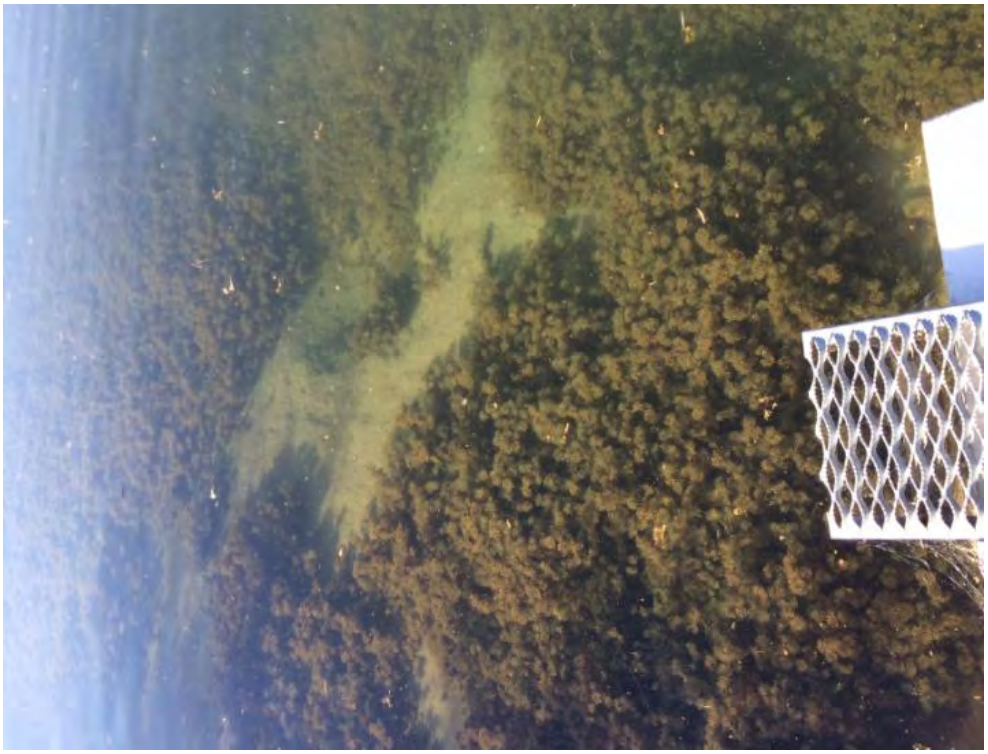


Photo 1. Stand pipe

Photo 2. Evidence of regular cleaning of screen

Photo 3. Willows growing on one of the irrigation stand pipes

Inlet to pond



Aquatic plants growing on bottom of pond

Outlet of pond

4.15 Shields River (060-1999)

FFIP PROJECT & LAND USE MONITORING FORM

Project #:	060-1999	Project Title:	Shields River
Date:	7/12/2016	Evaluator:	Shannon Bockmon/Carol Endicott
Waterbody Name:	Shields River	Project Type:	Channel/Riparian

Riparian, channel re , bank stabilization, passage, (Some projects may have multiple types)

Land Use Information (all projects)

	Yes	No	Unk.	NA
Does the project have a signed project agreement?	✓			
Land use type (Livestock, Residential, Public, Recreational, Agriculture, Timber, Other)	Livestock			
Was a PFC assessment conducted?			✓	
Has the trend in riparian condition improved since last visited or last photo?	✓			
Is project in overall compliance with project agreement?	✓			
Comments				

Photo Points

Frame #	Lat	Long	Facing?	Scene description/Previous Photo
1	45.95735	-110.63460	US	Point bar & bridge at start of project
2	"	"	DS	
3	45.95715	-110.63383	DS	Rock armoring at a slope
4	45.95566	-110.63336	DS	Root wad and tree
5	"	"		"
6	"	"		Fencing/ riparian not grazed
7	45.95542	-110.63323	DS	Point bar (and armoring?)
8	45.95468	-110.63396		End of project

Riparian (Fencing) Projects ✓

	Yes	No	Unk	NA
Does the project agreement include grazing stipulations? (No, Exclosure, Grazing plan, Unk, NA)				
Was fencing installed to exclude livestock?	✓			
If fenced, is the fencing in functional condition?	✓			
If fenced, has grazing occurred within the fenced area?		✓		
If grazed, is grazing in compliance with submitted mngt plans?	✓			
Level of observed browsing on riparian shrubs. (None, Sparse, Moderate, Heavy, NA)	None			
Density of riparian shrubs present. (None, Sparse, Common, Abundant, NA)	Common			
Age classes of riparian shrubs present. (None, One, Several, All, NA)	Several			
Channel Stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	See comments			
Channel Conditions? (Over-widened&shallow; Narrow&deep; Intermediate; Multi-thread)	All			

Streambank Stabilization Projects ✓

Current length of stream bank protected. (# Feet or Unknown)	
Type of stabilization used. (Root wads, Soil wrap, Willow plantings, Rip rap, Other-describe)	most, see comment
Current condition of stream bank. (Stable, Unstable, Eroding, Percent stable/unstable)	Stable
Has stream bank migrated. (No, Into stream, Into bank, Unknown)	both
Is any infrastructure (fence, etc.) in danger of being compromised. (No, Yes-describe)	fences
Predominant bank angle within stabilization. (Under cut, 90°-45°, <45°)	90 to 45 deg

Channel Restoration Projects ☐

Channel stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	
Channel Conditions? (Over-widened & shallow; Narrow & deep; Intermediate, Multi-thread)	
Condition of habitat enhancement structures. (Stable, Eroding, NA)	
Complexity of stream channel? (Pool-riffle, No pools, Wood forced pools, Lateral scour pools)	
Percent of stream reach in pools. (~total pool length/total stream length)	
Habitat enhancement structures involved? (LWD, Rootwads, Cross vanes, Other)	
Condition of habitat structures? (Stable, Eroded, Unknown)	

Comments:

(Existing land use?;Weeds?; Beneficial to fishery?; Public access?; Needs? What did we learn? ;etc.)

Planted willows never took, but existing willows migrated onto recently deposited gravel bars.
Parts of old project still remain, but most of the tree/root wads have been washed out over the years due to high flow events and the river changing course.
Armoring/bank stabilization is not putting much pressure on downstream banks.
" " sloped at about a 45 angle.
No grazing with in enclosure from cattle, but some from game. Very little evidence of game brows.
Gravel bar building may be from a channelized reach above project causing significant bed load transport which deposits once it hits the restored stretch.

Land Owner Comments:

Has this project been beneficial to you?	yes, although the river did changed course over time
Has project improved stream/riparian conditions?	yes
Effects on land use?	did have to move a fence a few times
Weeds?	yes
Noticable change in fishery?	
Thoughts for future work?	bank stabilization

Photo 1. Point bar and bridge at start of project

Photo 2. Start of project looking downstream.

Photo 3. Rock armoring at toe of bank.

Photo 4. Root wad and tree revetment.

Photo 5. Root wad and tree revetment.

Photo 6. Riparian fencing.

Photo 7. Small point bar and bank armoring.

Photo 8. End of project.

4.16 South & Middle Forks Horse Creek channel stabilization (012-2011)

FFIP PROJECT & LAND USE MONITORING FORM

Project #:		Project Title:	South Fork Horse Creek
Date:	6/7/2016	Evaluator:	Shannon Bockmon / Carol Endicott
Waterbody Name:	South Fork Horse Creek	Project Type:	Riparian/Channel Restoratio

Riparian, channel re , bank stabilization, passage, (Some projects may have multiple types)

Land Use Information (all projects)

	Yes	No	Unk.	NA
Does the project have a signed project agreement?	✓			
Land use type (Livestock, Residential, Public, Recreational, Agriculture, Timber, Other)	Livestock			
Was a PFC assessment conducted?			✓	
Has the trend in riparian condition improved since last visited or last photo?	✓			
Is project in overall compliance with project agreement?				
Comments				

Photo Points

Frame #	Lat	Long	Facing?	Scene description/Previous Photo
1	45.65748	110.57442	US	Start of Project
2	"	"		Awesome spawning gravel
3	"	"		Old cattle watering spot
4	45.98947	110.49957	DS	1st floodplain bench
5	45.98858	110.50053	US	See comments
6	"	"		Braided stream bed, vegetation present on sand bar
7	45.98824	1105005	DS	2nd floodplain bench (working)

Riparian (Fencing) Projects ✓

Does the project agreement include grazing stipulations? (No, Exclosure, Grazing plan, Unk, NA)	Exclosure			
	Yes	No	Unk	NA
Was fencing installed to exclude livestock?	✓			
If fenced, is the fencing in functional condition?	✓			
If fenced, has grazing occurred within the fenced area?		✓		
If grazed, is grazing in compliance with submitted mngt plans?			✓	
Level of observed browsing on riparian shrubs. (None, Sparse, Moderate, Heavy, NA)	None			
Density of riparian shrubs present. (None, Sparse, Common, Abundant, NA)	Abundant			
Age classes of riparian shrubs present. (None, One, Several, All, NA)	All			
Channel Stability? (Stable, Unstable, Aggrading, Degrading, Unknown)				
Channel Conditions? (Over-widened&shallow; Narrow&deep; Intermediate; Multi-thread)	Narrow/Deep			

Streambank Stabilization Projects

Current length of stream bank protected. (# Feet or Unknown)	
Type of stabilization used. (Root wads, Soil wrap, Willow plantings, Rip rap, Other-describe)	
Current condition of stream bank. (Stable, Unstable, Eroding, Percent stable/unstable)	Stable
Has stream bank migrated. (No, Into stream, Into bank, Unknown)	Into stream
Is any infrastructure (fence, etc.) in danger of being compromised. (No, Yes-describe)	No
Predominant bank angle within stabilization. (Under cut, 90°-45°, <45°)	

Channel Restoration Projects

Channel stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	
Channel Conditions? (Over-widened & shallow; Narrow & deep; Intermediate, Multi-thread)	
Condition of habitat enhancement structures. (Stable, Eroding, NA)	
Complexity of stream channel? (Pool-riffle, No pools, Wood forced pools, Lateral scour pools)	
Percent of stream reach in pools. (~total pool length/total stream length)	
Habitat enhancement structures involved? (LWD, Rootwads, Cross vanes, Other)	
Condition of habitat structures? (Stable, Eroded, Unknown)	

Comments:
(Existing land use?;Weeds?; Beneficial to fishery?; Public access?; Needs? What did we learn? ;etc.)
Bind weed and Canada thistle present Alder and willow recruitment Pools = overhanging bank and woody debris Gyrfalcon and spotted frog 1st floodplain bench washed out some but is still holding enough for willow recruitment and angle of repose is coming back Stream moved away from a formally eroding terrace, and now is healing well with willow recruitment. Lots of braids down stream. Willow stakes took

Land Owner Comments:	
Has this project been beneficial to you?	
Has project improved stream/riparian conditions?	
Effects on land use?	
Weeds?	
Noticable change in fishery?	
Thoughts for future work?	

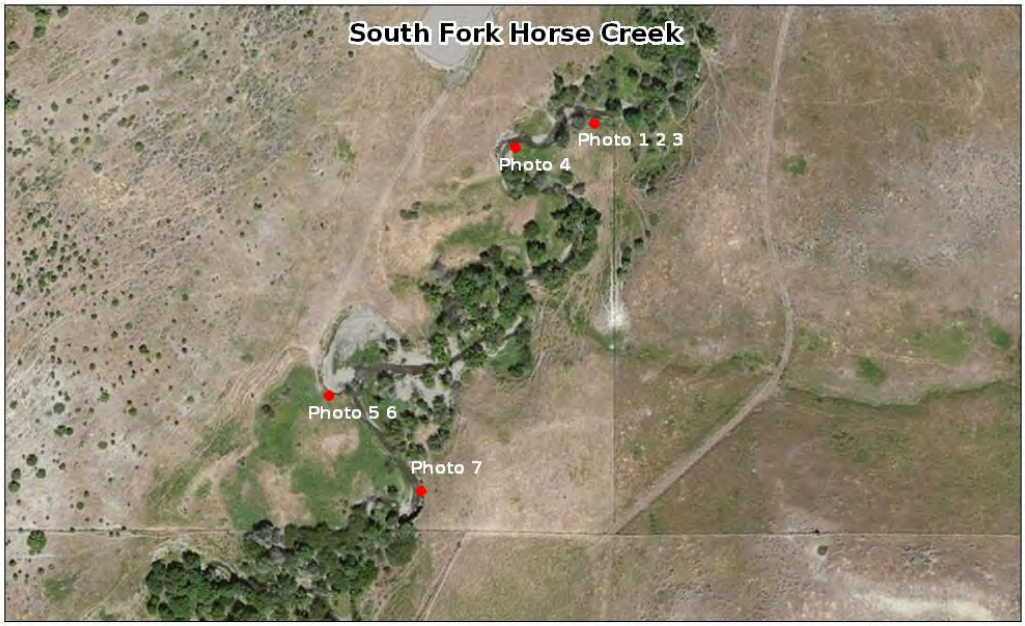


Photo 1a: Start of project.

Project 1b: Start of project looking downstream.

Photo 2: Spawning gravel.

Photo 3: Old cattle watering area.

Photo 4: First floodplain bench.

Photo 5: Floodplain bench that the stream moved away from.

Photo 6: Braided stream bed, vegetation present on gravel bar.

Photo 7: Floodplain bench working

FFIP PROJECT & LAND USE MONITORING FORM

Project #:		Project Title:	Middle Fork Horse Creek
Date:	6/7/2016	Evaluator:	Shannon Bockmon / Carol Endicott
Waterbody Name:	Middle Fork Horse Creek	Project Type:	Bank Stabilization

Riparian, channel re , bank stabilization, passage. (Some projects may have multiple types)

Land Use Information (all projects)

	Yes	No	Unk.	NA
Does the project have a signed project agreement?	✓			
Land use type (Livestock, Residential, Public, Recreational, Agriculture, Timber, Other)				
Was a PFC assessment conducted?			✓	
Has the trend in riparian condition improved since last visited or last photo?	✓			
Is project in overall compliance with project agreement?				
Comments				

Photo Points

Frame #	Lat	Long	Facing?	Scene description/Previous Photo
1	45.99961	110.5055	US	Floodplain bench

Riparian (Fencing) Projects

Does the project agreement include grazing stipulations? (No, Exclosure, Grazing plan, Unk, NA)				
	Yes	No	Unk	NA
Was fencing installed to exclude livestock?				
If fenced, is the fencing in functional condition?				
If fenced, has grazing occurred within the fenced area?				
If grazed, is grazing in compliance with submitted mngt plans?				
Level of observed browsing on riparian shrubs. (None, Sparse, Moderate, Heavy, NA)				
Density of riparian shrubs present. (None, Sparse, Common, Abundant, NA)				
Age classes of riparian shrubs present. (None, One, Several, All, NA)				
Channel Stability? (Stable, Unstable, Aggrading, Degrading, Unknown)				
Channel Conditions? (Over-widened&shallow; Narrow&deep; Intermediate; Multi-thread)				

Streambank Stabilization Projects ✓

Current length of stream bank protected. (# Feet or Unknown)	
Type of stabilization used. (Root wads, Soil wrap, Willow plantings, Rip rap, Other-describe)	Soil wrap
Current condition of stream bank. (Stable, Unstable, Eroding, Percent stable/unstable)	Stable
Has stream bank migrated. (No, Into stream, Into bank, Unknown)	No
Is any infrastructure (fence, etc.) in danger of being compromised. (No, Yes-describe)	No
Predominant bank angle within stabilization. (Under cut, 90°-45°, <45°)	

Channel Restoration Projects

Channel stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	
Channel Conditions? (Over-widened & shallow; Narrow & deep; Intermediate, Multi-thread)	
Condition of habitat enhancement structures. (Stable, Eroding, NA)	
Complexity of stream channel? (Pool-riffle, No pools, Wood forced pools, Lateral scour pools)	
Percent of stream reach in pools. (~total pool length/total stream length)	
Habitat enhancement structures involved? (LWD, Rootwads, Cross vanes, Other)	
Condition of habitat structures? (Stable, Eroded, Unknown)	

Comments:

(Existing land use?;Weeds?; Beneficial to fishery?; Public access?; Needs? What did we learn? ;etc.)

Bindweed
Floodplain bench is holding up well over the years.
Willow recruitment evident.

Land Owner Comments:

Has this project been beneficial to you?	
Has project improved stream/riparian conditions?	
Effects on land use?	
Weeds?	
Noticable change in fishery?	
Thoughts for future work?	

Photo 1a: Floodplain bench.

Photo 1b: Floodplain bench.

4.17 Sweet Grass Creek fencing (057-1998)

FFIP PROJECT & LAND USE MONITORING FORM

Project #:	057-98	Project Title:	Sweet Grass Creek fencing
Date:	7/2/2016	Evaluator:	Shannon Bockmon
Waterbody Name:	Sweet Grass Creek	Project Type:	Riparian

Riparian, channel re , bank stabilization, passage, (Some projects may have multiple types)

Land Use Information (all projects)

	Yes	No	Unk.	NA
Does the project have a signed project agreement?	✓			
Land use type (Livestock, Residential, Public, Recreational, Agriculture, Timber, Other)	Livestock			
Was a PFC assessment conducted?	✓			
Has the trend in riparian condition improved since last visited or last photo?	✓			
Is project in overall compliance with project agreement?	✓			
Comments				

Photo Points

Frame #	Lat	Long	Facing?	Scene description/Previous Photo
1	from comp.	on bridge	US	Bridge at start of project
2	45.78919	-109.78760		Project fencing
3	45.79183	-109.78619		" with pivot
4	45.79511	-109.77785	US	overview of upper end of riparian
5	"	"		overview or middle restoration
6	"	"		"
7	45.79526	-109.77834		Overview of lower end of project

Riparian (Fencing) Projects ✓

Does the project agreement include grazing stipulations? (No, Exclosure, Grazing plan, Unk, NA)	Grazing Plan			
	Yes	No	Unk	NA
Was fencing installed to exclude livestock?	✓			
If fenced, is the fencing in functional condition?	✓			
If fenced, has grazing occurred within the fenced area?	✓			
If grazed, is grazing in compliance with submitted mngt plans?	✓			
Level of observed browsing on riparian shrubs. (None, Sparse, Moderate, Heavy, NA)	Sparse			
Density of riparian shrubs present. (None, Sparse, Common, Abundant, NA)	Abundant			
Age classes of riparian shrubs present. (None, One, Several, All, NA)	All			
Channel Stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	Stable			
Channel Conditions? (Over-widened&shallow; Narrow&deep; Intermediate; Multi-thread)				

Streambank Stabilization Projects

Current length of stream bank protected. (# Feet or Unknown)	
Type of stabilization used. (Root wads, Soil wrap, Willow plantings, Rip rap, Other-describe)	
Current condition of stream bank. (Stable, Unstable, Eroding, Percent stable/unstable)	
Has stream bank migrated. (No, Into stream, Into bank, Unknown)	
Is any infrastructure (fence, etc.) in danger of being compromised. (No, Yes-describe)	
Predominant bank angle within stabilization. (Under cut, 90°-45°, <45°)	

Channel Restoration Projects

Channel stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	
Channel Conditions? (Over-widened & shallow; Narrow & deep; Intermediate, Multi-thread)	
Condition of habitat enhancement structures. (Stable, Eroding, NA)	
Complexity of stream channel? (Pool-riffle, No pools, Wood forced pools, Lateral scour pools)	
Percent of stream reach in pools. (~total pool length/total stream length)	
Habitat enhancement structures involved? (LWD, Rootwads, Cross vanes, Other)	
Condition of habitat structures? (Stable, Eroded, Unknown)	

Comments:
(Existing land use?;Weeds?; Beneficial to fishery?; Public access?; Needs? What did we learn? ;etc.)
Intensive grazing for short periods (about 14 days) Not much hoof shear present Some bank erosion and movement, near the pivot. But land owner states the erosion is slow and doesn't worry him much. Most of the project area looks to be stabilizing its self with regrowth of riparian areas. Land owner did say there was a moose spotted not long ago in the restored area.

Land Owner Comments:	
Has this project been beneficial to you?	Very
Has project improved stream/riparian conditions?	YES
Effects on land use?	Still graze but with short periods
Weeds?	Right after fencing went in weeds shot up, but now using bio control
Noticable change in fishery?	Yes, but creek goes dry near end of summer due to agriculture
Thoughts for future work?	Try not to over graze

Points

Points

Printed from fwp.mt.gov
July 14, 2016

1:9,028

0 0.075 0.15 0.3 mi

0 0.1 0.2 0.4 km

This map was generated from the Montana Fish, Wildlife & Parks (FWP) internal FWP Mapper online mapping system. Data layers on this map may depict sensitive species level information. This map is not intended for distribution or use beyond work associated with FWP.

Some layers may not appear in the legend due to page size limitations.

Photo 1: Bridge at start of project

Photo 2: Project fencing

Photo 3: Project fencing with pivot

Photo 4: Overview of the upper end of project (riparian recruitment)

Photo 5: Overview of the middle portion of the project

Photo 6: Overview of middle of project.

Photo 7: Overview of lower end of project

4.18 Volney Creek corral relocation (046-2006)

FFIP PROJECT & LAND USE MONITORING FORM

Project #:	046-06	Project Title:	Volney Creek corral relocation
Date:	7/11/2016	Evaluator:	Shannon Bockmon
Waterbody Name:	Volney Creek	Project Type:	Water savings/riparian

Riparian, channel re , bank stabilization, passage, (Some projects may have multiple types)

Land Use Information (all projects)

	Yes	No	Unk.	NA
Does the project have a signed project agreement?	✓			
Land use type (Livestock, Residential, Public, Recreational, Agriculture, Timber, Other)	Livestock			
Was a PFC assessment conducted?			✓	
Has the trend in riparian condition improved since last visited or last photo?	✓			
Is project in overall compliance with project agreement?	✓			
Comments				

Photo Points

Frame #	Lat	Long	Facing?	Scene description/Previous Photo
1	45.40155	-109.32656	US	old corral area that was removed
2	"	"		Stream
3	"	"		some hoof shear
4	"	"		owl
5	from comp.			new corral
6	"	"		new working pens
7	"	"		riparian fencing
8	"	"		"
9	"	"		Riparian w/ willows
10	"	"		drainage out to field

Riparian (Fencing) Projects

Does the project agreement include grazing stipulations? (No, Exclosure, Grazing plan, Unk, NA)				
	Yes	No	Unk	NA
Was fencing installed to exclude livestock?	✓			
If fenced, is the fencing in functional condition?	✓			
If fenced, has grazing occurred within the fenced area?	✓			
If grazed, is grazing in compliance with submitted mngt plans?				
Level of observed browsing on riparian shrubs. (None, Sparse, Moderate, Heavy, NA)	None			
Density of riparian shrubs present. (None, Sparse, Common, Abundant, NA)	Common			
Age classes of riparian shrubs present. (None, One, Several, All, NA)	All			
Channel Stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	Stable			
Channel Conditions? (Over-widened&shallow; Narrow&deep; Intermediate; Multi-thread)				

Streambank Stabilization Projects

Current length of stream bank protected. (# Feet or Unknown)	
Type of stabilization used. (Root wads, Soil wrap, Willow plantings, Rip rap, Other-describe)	
Current condition of stream bank. (Stable, Unstable, Eroding, Percent stable/unstable)	
Has stream bank migrated. (No, Into stream, Into bank, Unknown)	
Is any infrastructure (fence, etc.) in danger of being compromised. (No, Yes-describe)	
Predominant bank angle within stabilization. (Under cut, 90°-45°, <45°)	

Channel Restoration Projects

Channel stability? (Stable, Unstable, Aggrading, Degrading, Unknown)	
Channel Conditions? (Over-widened & shallow; Narrow & deep; Intermediate, Multi-thread)	
Condition of habitat enhancement structures. (Stable, Eroding, NA)	
Complexity of stream channel? (Pool-riffle, No pools, Wood forced pools, Lateral scour pools)	
Percent of stream reach in pools. (~total pool length/total stream length)	
Habitat enhancement structures involved? (LWD, Rootwads, Cross vanes, Other)	
Condition of habitat structures? (Stable, Eroded, Unknown)	

Comments:
(Existing land use?;Weeds?; Beneficial to fishery?; Public access?; Needs? What did we learn? ;etc.)
Some hoof shear is present in the area where the old corral was, but very little and done not look to be of much harm to the stream. Stream banks where the old corral was removed are healing with grasses and look to be stabilizing. No willows are present yet, but just down stream there are willows growing where riparian fencing was placed. Some weeds are present but landowner states that she sprays them as much as she can when she can by hand as to not dump herbicide into the stream.

Land Owner Comments:	
Has this project been beneficial to you?	yes
Has project improved stream/riparian conditions?	yes
Effects on land use?	none
Weeds?	some, but manageable by spraying
Noticable change in fishery?	no fish/ stream goes dry
Thoughts for future work?	nope

Photo 1: Old corral area

Photo 2: Volney Creek

Photo 3: Light hoof shear.

Photo 4: Young Owl.

Photo 5: New corral location.

Photo 6: New working Pens.

Photo 7: Project fencing.

Photo 8: Project fencing.

Photo 9: Riparian fencing with willow recruitment.

Photo 10: Corral drainage out towards the field rather than into the stream.