MONTANA FISH, WILDLIFE AND PARKS
FISHERIES DIVISION

Draft Environmental Assessment
MEPA/NEPA CHECKLIST

Introduction of Sterile Tiger Muskellunge into Willow Creek Reservoir as a Biological Control to Reduce an Expanding White Sucker Population

PART I: PROPOSED ACTION DESCRIPTION

A. Type of Proposed Action: Montana Fish, Wildlife & Parks (FWP) proposes to introduce tiger muskies into Willow Creek Reservoir to reduce the abundance of white suckers with the objective of improving the recreational fishery for rainbow trout.

B. Agency Authority for the Proposed Action:

87-1-702. Powers of department relating to fish restoration and management. The department is hereby authorized to perform such acts as may be necessary to the establishment and conduct of fish restoration and management projects as defined and authorized by the act of congress, provided every project initiated under the provisions of the act shall be under the supervision of the department, and no laws or rules or regulations shall be passed, made, or established relating to said fish restoration and management projects except they be in conformity with the laws of the state of Montana or rules promulgated by the department, and the title to all lands acquired or projects created from lands purchased or acquired by deed or gift shall vest in, be, there remain in the state of Montana and shall be operated and maintained by it in accordance with the laws of the state of Montana. The department shall have no power to accept benefits unless the fish restoration and management projects created or established shall wholly and permanently belong to the state of Montana, except as hereinafter provided.

C. Estimated Commencement Date: August 2014 if fish are available

D. Name and Location of the Project:

Environmental assessment of the introduction of sterile tiger muskellunge (F1 hybrids of female muskellunge *Esox masquinongy* and male northern pike *E. lucius*) into Willow Creek Reservoir as a biological control to reduce an expanding white sucker population

Willow Creek Reservoir is an off-stream irrigation reservoir located approximately four miles northwest of the town of Augusta in Lewis and Clark County (T21N R07W Sections 13, 14, 23-26; T21N R06W Sections 19, 30; Figure 1).

E. Project Size (acres affected)

1. Developed/residential – 0 acres
2. Industrial – 0 acres
3. Open space/Woodlands/Recreation – 0 acres
4. Wetlands/Riparian – Willow Creek Reservoir is approximately 1,314 surface acres at full-pool elevation.
5. Floodplain – 0 acres
6. Irrigated Cropland – 0 acres
7. Dry Cropland – 0 acres
8. Forestry – 0 acres
9. Rangeland – 0 acres

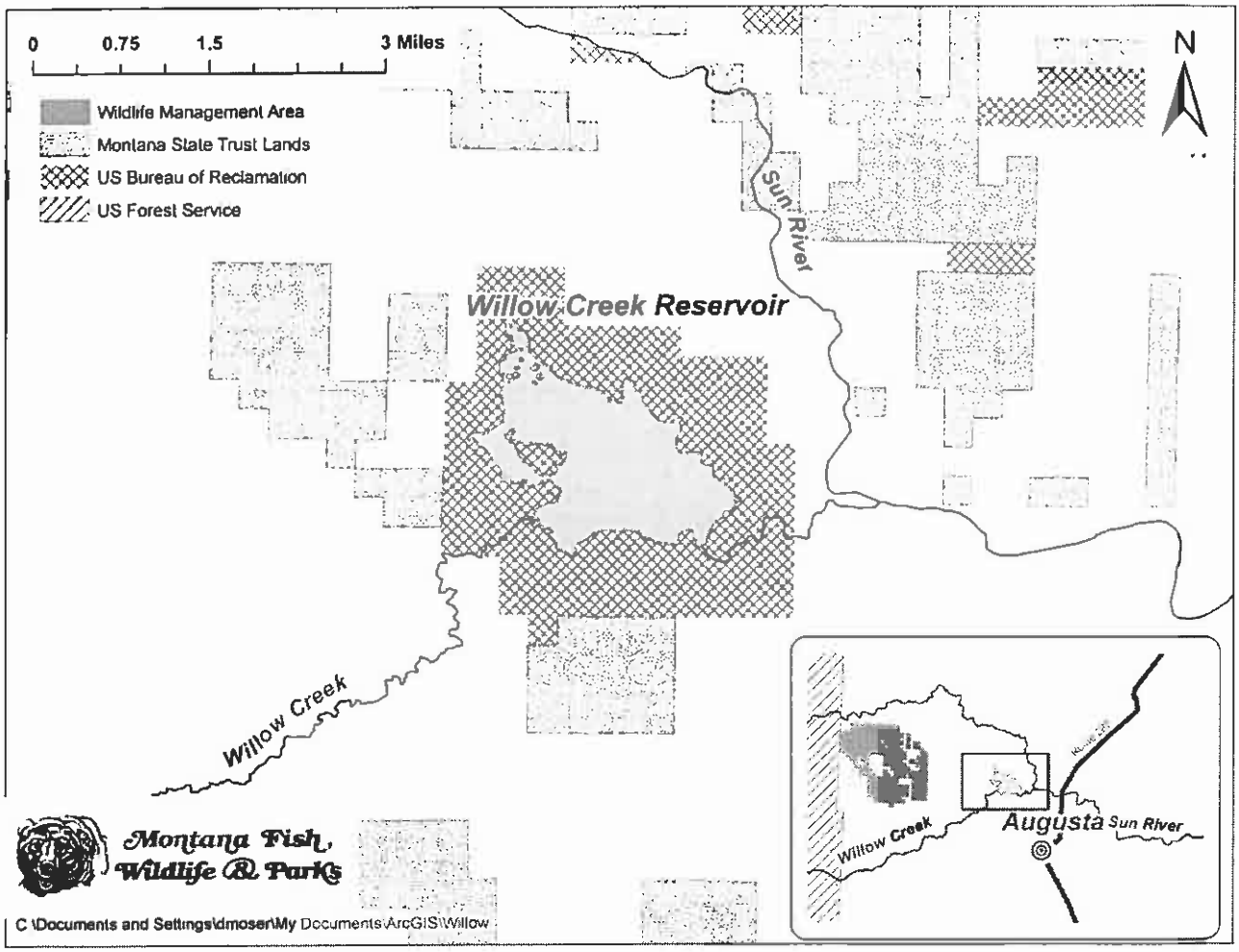

Figure 1. Map of project area.

F. Narrative Summary of the Proposed Action and Purpose of the Proposed Action

Willow Creek Reservoir was constructed in the early 1900's under authority of the Sun River Project. Construction of the reservoir commenced in 1907 and was completed in 1911. It was the first storage reservoir built on the Sun River Project, and was followed by the completion of Gibson Reservoir in 1929 and Pishkun Reservoir in 1931. Combined, these three reservoirs provide water to irrigate 81,000 acres in the Greenfield Irrigation District and 10,150 acres in the Fort Shaw Irrigation District (USBOR web site).

Receiving water from both Willow Creek and Gibson Reservoir on the upper Sun River, Willow Creek Reservoir has a surface area of approximately 1,314 acres and capacity of 32,400 ac-ft. at full-pool. Inflows typically occur in May and June, and water is generally discharged from the reservoir starting in mid July through August to augment Sun River flows. Annual drawdown is typically about 10 feet. It is a productive reservoir with extensive shallow littoral areas on the west end and deep water habitat towards the dam. There is excellent access to the reservoir as it is surrounded by public land owned by the Bureau of Reclamation, and FWP administers a fishing access site including a campground and boat ramp on the south shore of the reservoir. It is a popular destination for water-based recreation, particularly fishing.

MFWP first stocked rainbow trout into Willow Creek Reservoir in 1949. During the 1950's there was an extended period when the reservoir was not stocked, but since 1961 it has received annual plants of rainbow trout. The current FWP stocking plan calls for Willow Creek Reservoir to receive 75,000 Eagle Lake strain rainbow trout fingerlings each June. This particular strain of rainbow trout grows quickly and exhibits excellent longevity of five to six years. Because of this longevity, stocked rainbows occasionally attain trophy size exceeding eight pounds.

Fishing pressure on Willow Creek Reservoir has averaged 7,083 angler days per year since 1982, with a peak use of 19,225 angler days occurring in 1985. Recently, angler use has decreased with a decline in the rainbow trout fishery. Fishing pressure has averaged just 4,430 angler days per year since 2003. The decline in fishing pressure parallels the recent decline in rainbow trout abundance in the reservoir.

Recent standardized gill net sampling in Willow Creek Reservoir indicated the fish community is dominated by white suckers, comprising 85% to 95% of all fish sampled since 2010 (Figure 2). , There has been a measureable decline in the body condition of rainbow trout. Relative weight (W_r) values (an index of body condition or plumpness) for the reservoir's rainbow trout population have steadily declined since 2009. Similarly, the mean W_r of the white sucker population has declined as their numbers have increased in the reservoir (Figure 2; Figure 3). The increase in suckers in Willow Creek Reservoir has resulted in decline in trout condition and angler use.

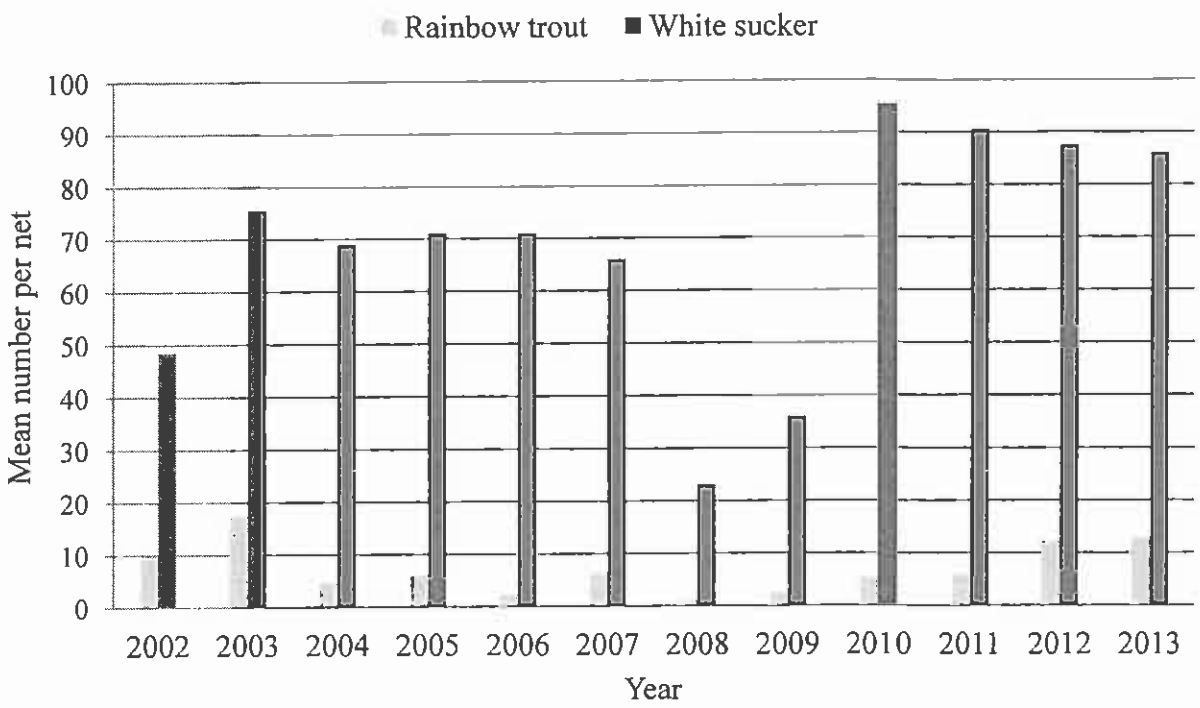

Figure 2. Standardized gill net catches of rainbow trout and white suckers in Willow Creek Reservoir.

White suckers can compete directly with rainbow trout for zooplankton (Barton and Bidgood 1980, Schneidervin and Hubert 1987). Both species select for *Daphnia,* however white suckers tend to select *Daphnia* at a slightly smaller size than is preferred by rainbow trout (Schneidevin and Hubert 1987). Because of this size preference, a high density white sucker population can crop off *Daphnia* before they reach the larger sizes preferred by rainbow trout. This competition for available food resources appears to be limiting the growth and body condition of the rainbow trout population in Willow Creek Reservoir, thus reducing the potential of this popular recreational fishery.

Managers have three viable methods to reduce white sucker abundance in a reservoir environment: mechanical removal, piscicide treatment, or use of a biological control. The mechanical removal of white suckers could be accomplished with the use of gill nets or trapnets fished in the spring targeting spawning aggregations. Efforts to remove white suckers from Ackley Lake and Bair Reservoir in northcentral Montana resulted in short-term improvement of rainbow trout W_r values. However, these efforts were very time consuming and costly and would require annual or frequent removals to achieve a long-term benefit (A. Tews, personal communication, MT Fish, Wildlife & Parks). Willow Creek Reservoir is over five times larger than Ackley Lake and Bair Reservoir and would require considerable more effort to

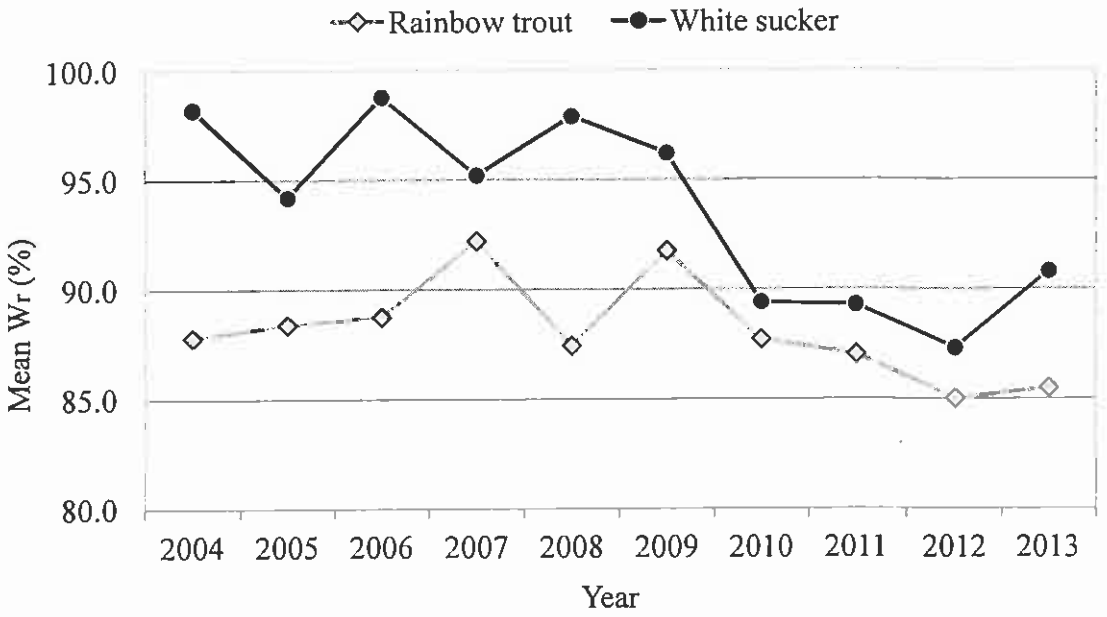

Figure 3. Relative weight (W_r) trends of rainbow trout and white suckers in Willow Creek Reservoir.

remove adequate numbers of white suckers to provide a measureable benefit to the rainbow trout fishery. The resources to accomplish this annually are not available.

Treating a waterbody with a piscicide such as rotenone can be very effective in removing an unwanted species. The potential use of rotenone in Willow Creek Reservoir would be cost prohibitive because of the volume of water that would need to be treated, even if the reservoir was drawn down to dead storage. Furthermore, because Willow Creek Reservoir's water sources (Willow Creek and the upper Sun River) contain white sucker populations, it is likely they would quickly re-populate the reservoir following treatment. Plus, Willow Creek Reservoir water is designated for irrigation, so using rotenone is not impossible, but adds another layer of complexity.

The most cost-effective of the three alternatives presented for reducing the abundance of white suckers in Willow Creek Reservoir is to introduce a predator fish that could effectively prey on them. Introduction of a new fish species often presents irreversible risks because it can result in a self-sustaining population. Tiger muskies are a sterile hybrid that cannot reproduce, thus they are an ideal predator fish to consider for this proposal. Their numbers can easily be managed by adjusting stocking numbers and/or angling limits, or by mechanical removal with nets.

Tiger muskies are an opportunistic predator that feed mostly on fish. They are bottom oriented and tend to select for benthic fishes rather than prey that suspends in the water column (Engstrom-Heg et al. 1986). Tiger muskies have been widely used as a biological control of undesirable fish species to improve recreational fisheries. In Colorado tiger muskies have been successfully used on several waters to control white suckers and common carp (Satterfield and

Elmblad 1995). Biologists in New Mexico used tiger muskies to reduce sucker and goldfish populations to improve trout fisheries (Moffatt 2010). Brook trout populations in mountain lakes in Idaho were effectively reduced using tiger muskies to the benefit of native species (DuPont et al. 2011). In Region 5 in Montana, tiger muskies have been successfully used in Deadmans Basin Reservoir, Lebo Lake, Lake Elmo and Lake Josephine to improve recreational fisheries (K. Frazer, MT Fish, Wildlife and Parks, personal communication). There have been no deleterious impacts associated with these introductions into Montana waters.

A secondary benefit to the introduction of tiger muskies is that they often develop into trophy fisheries, as they grow quickly and attain large sizes attractive to anglers. This would provide a unique angling opportunity for northcentral Montana. These trophy fisheries are popular, as many anglers are now specifically targeting tiger muskies in Deadmans Basin Reservoir, which holds the current Montana state record of 38.75 lbs. If stocked into Willow Creek Reservoir, the standard Central Fishing District limit would apply for tiger muskies, limiting anglers to harvesting just one fish over 40 inches in length. This restrictive harvest would protect these fish to grow large enough to effectively prey on the largest white suckers in the reservoir, as well as promote the development of a trophy fishery.

FWP would stock fingerling tiger muskies for at least two consecutive years. Netting surveys would be used to closely monitor the survival of the tiger muskie plants, as well as relative abundances and body condition of the white sucker and rainbow trout populations. The number of tiger muskies planted in future years would be determined by balancing the reduction in sucker numbers with the corresponding improvement in Wr values of rainbow trout. Specifically, the objective of the project is to improve rainbow trout Wr values to 95% - 100%, which would greatly improve the quality of this fishery.

PART II: ENVIRONMENTAL REVIEW

1. Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. LAND RESOURCES **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?		X				
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

2. AIR **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))		X				
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. For P-R/D-J projects, will the project result in any discharge which will conflict with federal or state air quality regulations? (Also see 2a)		X				
f. Other		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

3. WATER	IMPACT	Can Impact Be Mitigated	Comment Index

Will the proposed action result in:	Unknown	None	Minor	Potentially Significant		
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X				
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of flood water or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. For P-R/D-J, will the project affect a designated floodplain? (Also see 3c)		X				
m. For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a)		X				
n. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

4. VEGETATION Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?		X				
f. For P-R/D- J, will the project affect wetlands, or prime and unique farmland?		X				

g. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

5. FISH/WILDLIFE **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of nongame species?			X			5c
d. Introduction of new species into an area?			X		Yes	5d
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				5f
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?			X			5g
h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)		X				5h
i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)			X		Yes	5i
j. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

5c. White suckers are a native, non-game fish species currently very abundant in Willow Creek Reservoir. There likely would be a long-term negative impact to the white sucker population in the reservoir as the objective of the proposed action is to reduce their abundance. This localized reduction in white suckers would be insignificant as they are common and abundant throughout Montana east of the Continental Divide.

5d. The proposed action would introduce a new fish species into Willow Creek Reservoir. Tiger muskies are a sterile hybrid that are unable to reproduce, thus they could be removed from the reservoir if necessary.

5f. Willow Creek Reservoir is located within the range of grizzly bears in the Northern Continental Divide Recovery Area, but is not critical habitat nor do white suckers provide an important food source.

5g. The proposed action may result in increased angler use on Willow Creek Reservoir, which could stress or displace some wildlife.

5h. See 5f.

5i. See 5d.

B. HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS	IMPACT	Can Impact Be	Comment

Will the proposed action result in:	Unknown	None	Minor	Potentially Significant	Mitigated	Index
a. Increases in existing noise levels?		X				
b. Exposure of people to severe or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

7. LAND USE Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Other: Increased recreation us			X			7e

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

7e. The development of a trophy tiger muskie fishery and a better quality rainbow trout fishery have the potential to attract more anglers to Willow Creek Reservoir. This potential increase in use is not expected to result in additional impacts to the surrounding public lands at the reservoir.

8. RISK/HEALTH HAZARDS Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

9. COMMUNITY IMPACT **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other:		X				9f

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

9f. The proposed action may result in increased use of Willow Creek Reservoir if a trophy fishery develops for tiger muskie and the quality of the rainbow trout fishery improves. This potential increase in use may provide an economic benefit to the surrounding communities.

10. PUBLIC SERVICES/TAXES/UTILITIES **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify: _____		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased used of any energy source?		X				
e. Define projected revenue sources		X				
f. Define projected maintenance costs		X				10f
g. Other:_____						

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

10f. FWP hatchery facilities and personnel would be used to implement this proposal, but these costs would be within normal operating expenses.

11. AESTHETICS/RECREATION **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report)			X			11c
d. For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c)		NA				
e. Other:		NA				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

11c. The proposed action would be intended to increase recreational use of Willow Creek Reservoir by improving and increasing angling opportunities for the public. No tourism report is required to quantify these opportunities.

12. CULTURAL/HISTORICAL RESOURCES **Will the proposed action result in:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. For P-R/D-J, will the project affect historic or cultural resources? **Attach SHPO letter of clearance.** (Also see 12.a)		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

13. SUMMARY EVALUATION OF SIGNIFICANCE **Will the proposed action, considered as a whole:**	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)		X				

b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e)		X				
g. For P-R/D-J, list any federal or state permits required.		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

PART II. ENVIRONMENTAL REVIEW, CONTINUED

2. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:

Alternative A: No Action
Maintain the existing rainbow trout fishery in Willow Creek Reservoir without implementing any management actions to reduce the white sucker population. This alternative would limit the potential of the rainbow trout fishery and result in low angler use and opportunity. This alternative would also eliminate the potential development of a trophy fishery for tiger muskies in Willow Creek Reservoir.

Alternative B: Mechanical Removal Option
Remove white suckers using gill net and/or trap nets targeting spawning aggregations during the spring time. This alternative could potentially meet the proposal's objectives of reducing the white sucker population to a level where improvements in the quality of the rainbow trout fishery are realized. The limitations of this alternative are the operational costs and required manpower, which are compounded by the need to complete these removal efforts on an annual or near-annual basis. This alternative would also eliminate the potential development of a trophy fishery for tiger muskies in northcentral Montana.

Alternative C: Stock Tiger Muskellunge Option (Preferred Alternative)
Stock tiger muskies into Willow Creek Reservoir to provide a biological control of white suckers. FWP would monitor changes in the fisheries as these tiger muskie grow in size and adjust future tiger muskie plants to meet management needs. This alternative would provide a cost-effective means to manage the white sucker population to improve the quality of the rainbow trout fishery, and also likely lead to the development of a unique, trophy fishery.

3. **Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:**
(This section provides an analysis of impacts to private property by proposed restrictions or stipulations in this EA as required under 75-1-201, MCA, and the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The analysis provided in this EA is conducted in accordance with implementation guidance issued by the Montana Legislative Services Division (EQC, 1996). A completed checklist designed to assist state agencies in identifying and valuating proposed agency actions, such as imposed stipulations, that may result in the taking or damaging of private property, is included in Appendix A.)

   The EA has disclosed any impacts and mitigation measures to private property as a result of the proposed action.

PART III: NARRATIVE EVALUATION AND COMMENT

This analysis did not reveal any significant impacts to the human or physical environment. After consideration of the alternatives listed, the desired objectives, and any limitations identified in this analysis, FWP has made the determination that Alternative C, as described in the draft EA, has the greatest potential of fulfilling the desired objectives while having the least environmental impact. Alternative C provides FWP with the option to introduce tiger muskies as a biological control of white suckers.

PART IV: EA CONCLUSION SECTION

1. **Based on the significance criteria evaluated in this EA, is an EIS required (YES/NO)? If an EIS is not required, explain why the EA is the appropriate level of analysis for the proposed action.**

   No. Based on an evaluation of impacts to the physical and human environment, this assessment revealed no significant negative impacts from the proposed action; therefore, an EIS is not necessary and an environmental assessment is the appropriate level of analysis.

2. **Describe the level of public involvement for this project if any, and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?**

   FWP has initiated conversations with local anglers in an attempt to gauge public interest and support for the proposed action. Those conversations have generally been supportive of the proposed action.

This EA will be posted on the FWP website for 30 days and copies will be made available in the Choteau office as well as Region 4 headquarters. An FWP press release will be made available to local media outlets.

3. **Duration of comment period, if any. Date when comments are due. Mail or email address to send comments.**

The draft EA will be open for public comment for 30 days starting June 2, 2014 through July 2, 2014 .

Comments can be sent to:
Dave Yerk
MT Fish, Wildlife & Parks
PO Box 746
Choteau, MT 59422

dyerk@mt.gov

4. **Name, title, address, and phone number of the person(s) responsible for preparing the EA.**

Dave Yerk
Choteau Area Fisheries Biologist
MT Fish, Wildlife & Parks
PO Box 746
Choteau, MT 59422
(406) 466-5621

PART VI. REFERENCES

Barton, B. A., and B. F. Bidgood. 1980. Competitive feeding habits of rainbow trout, white sucker and longnose sucker in Paine Lake, Alberta. Alberta Department of Energy and Natural Resources, Fisheries Research Report 16, Calgary

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U.S Bureau of Reclamation. Website: http://www.usbr.gov/projects/Project.jsp?proj_Name=Sun%20River%20Project

APPENDIX A

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

The 54th Legislature enacted the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The intent of the legislation is to establish an orderly and consistent process by which state agencies evaluate their proposed actions under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."

The Private Property Assessment Act applies to proposed agency actions pertaining to land or water management or to some other environmental matter that, if adopted and enforced without compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.

The Montana State Attorney General's Office has developed guidelines for use by state agency to assess the impact of a proposed agency action on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency action has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act. For the purposes of this EA, the questions on the following checklist refer to the following required stipulation(s):

(LIST ANY MITIGATION OR STIPALTIONS REQUIRED, OR NOTE "NONE")

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

YES	NO		
	X	1.	Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2.	Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3.	Does the action deprive the owner of all economically viable uses of the property?
	X	4.	Does the action deny a fundamental attribute of ownership?
	X	5.	Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is **NO**, skip questions 5a and 5b and continue with question 6.]
	NA	5a.	Is there a reasonable, specific connection between the government requirement and legitimate state interests?
	NA	5b.	Is the government requirement roughly proportional to the impact of the proposed use of the property?

	X	6.	Does the action have a severe impact on the value of the property?
	X	7.	Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is **NO**, do not answer questions 7a-7c.]
	NA	7a.	Is the impact of government action direct, peculiar, and significant?
	NA	7b.	Has government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
	NA	7c.	Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if **YES** is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if **NO** is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with Section 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.