CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Swede Chicken Fish Passage Construction
Proposed Implementation Date: 12 July 2010 – 3 September 2010
Proponent: DNRC
Location: Stillwater State Forest
County: Flathead

I. TYPE AND PURPOSE OF ACTION

The 'Swede Chicken Fish Passage Construction' project area involves four separate actions that are all within 2.5 miles of each other. All four actions include forest road construction and/or deconstruction, and three of the actions also involve technical in-stream work with corrugated metal pipes (CMP). The general operating window would be July 12, 2010 through August 20, 2010 for all in-stream work; non-in-stream work may take place through September 3, 2010. Fill material and CMP staging at CMP replacement sites may occur prior to July 12, 2010. The four action areas included in this project are:

1. Replacement of a CMP on Swede Creek. Swede Creek supports bull trout, and the existing CMP on the Upper Whitefish Road is a barrier to fish passage. The existing CMP would be removed and replaced with a new embedded 10.5-foot round CMP that will provide full levels of fish passage.

2. Replacement of a CMP on Chicken Creek. Chicken Creek supports westslope cutthroat trout, and the existing CMP on the Lower Whitefish Road has long-term water quality, structural, and fish passage issues. The existing CMP would be removed and replaced with a new embedded 10.5-foot round CMP that will provide full levels of fish passage. A large amount of fill would need to be brought in from an existing pit approximately 1,200 feet away from the construction site.

3. Removal of a CMP on upper Chicken Creek. The existing CMP at this location would be permanently removed from the stream. Existing road fill material would be drifted outside of the SMZ and the original streambed and floodplain would be reconstructed.

4. Construction of a "by-pass" road segment. This action involves the construction of a new forest road (approximately 1,050 feet) that would bypass the CMP to be removed on upper Chicken Creek. This construction would involve very minor clearing, some reconstruction of an existing road prism, and installation of gate.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project. List number of individuals contacted, number of responses received, and newspapers in which notices were placed and for how long. Briefly summarize issues received from the public.

The 'Swede Chicken Fish Passage Construction' project area is part of the larger Swede-Chicken-Whitetail Native Fish Conservation Project (SCWNFCP). DNRC began developing the SCWNFCP during 2007 to address five high priority native fish and water quality problem sites in the Swan and Stillwater state forests. Site surveys and preliminary restoration designs were developed during 2008 and reviewed

internally in early 2009. DNRC approached FWP in late 2008 to inquire if that agency may be interested in collaborating in the SCWNFCP. FWP expressed interest in the SCWNFCP and a financial MOU was signed by both agencies in 2009. Plum Creek Timber Company was also notified of the 'Swede Chicken Fish Passage Construction' project area plan.

A broader public scoping release through various media outlets was not conducted since the majority of activities in the 'Swede Chicken Fish Passage Construction' project area fall under MEPA categorical exclusions. This EA checklist had been drafted in order to assess the environmental impact of the "by-pass" road segment construction described above, which is an activity that is not categorically excluded. However, all activities in the 'Swede Chicken Fish Passage Construction' project area will be addressed in this EA checklist in order to also comply with the assessment needs otherwise required for the categorically excluded activities.

FWP raised the following issue related to the 'Swede Chicken Fish Passage Construction' project area: in-stream construction activities may impact westslope cutthroat and bull trout spawning depending on the seasonal timing of those activities. The construction window of July 12, 2010 through August 20, 2010 for all in-stream work has been developed in order to minimize potential short-term risks to this resource.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:
Examples: cost-share agreement with U.S. Forest Service, 124 Permit, 3A Authorization, Air Quality Major Open Burning Permit.

A 124 permit for in-stream activities would be required from FWP. A 3A Authorization from FWP or DEQ would also be required for the in-stream activities.

3. ALTERNATIVE DEVELOPMENT:
Describe alternatives considered and, if applicable, provide brief description of how the alternatives were developed. List alternatives that were considered but eliminated from further analysis and why.

Project alternatives include: 'no-action' and 'action'. The development of the 'action' alternative is described in Section II-1, and specific plans in the 'action' alternative are described in Section I. No other alternatives have been considered and eliminated from further analysis.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify direct, indirect, and cumulative effects to soils.

All of the proposed activities would occur on or immediately adjacent to existing road prisms, except for 670 feet of new road construction associated with the "by-pass" road segment. As a consequence, approximately 1/2-acre of existing soils would be compacted and converted to road surface or road clearing limit. No fragile or unstable soils are known to occur at or near the proposed sites affected in the

project area. All exposed soils at the road-stream crossing sites (except final road surfaces) and "by-pass" road segment would be grass-seeded upon completion of construction to mitigate potential erosion. Low direct, indirect, and cumulative effects to soils would occur at most activity sites in the project area, but high direct, indirect, and cumulative effects would occur to the 1/2-acre of soils that would be compacted and converted to road surface or road clearing limit.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify direct, indirect, and cumulative effects to water resources.

Both Swede and Chicken creeks within the project area are classified as A-1. Waterways classified as A-1 are suitable for drinking, culinary and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life; waterfowl and furbearers; and agricultural and industrial water supply. Water Quality Standards for A-1 waterways prohibit any increase in sediment above naturally occurring concentrations. Naturally occurring means conditions or materials present from runoff or percolation over which man has no control or from developed land where all reasonable land, soil, and water conservation practices have been applied. Reasonable land, soil, and water conservation practices include: methods, measures or practices that protect present and reasonably anticipated beneficial uses. The State of Montana has adopted Best Management Practices (BMPs) through its non-point source management plan as the principle means of meeting the Water Quality Standards.

All applicable BMPs would be implemented during and after construction activities to minimize potential sedimentation. Although all applicable BMPs would be implemented within the project area, short pulses of suspended sediment would be expected to be introduced to Swede and Chicken creeks during the initial diversion of flows around the construction sites and during the reintroduction of flows to the restored stream channels. These short-term impacts would be inevitable but relatively minor in magnitude and duration when compared to natural range of runoff processes. Due to greatly improved hydrologic capacity and function, the long-term risks of impacts to water quality at the three road-stream crossing sites would be greatly reduced over existing conditions. Short-term, low to moderate direct and indirect adverse impacts to water quality would occur; however, long-term, very positive direct, indirect and cumulative impacts are also expected to occur.

6. AIR QUALITY:

What pollutants or particulate would be produced (i.e. particulate matter from road use or harvesting, slash pile burning, prescribed burning, etc)? Identify the Airshed and Impact Zone (if any) according to the Montana/Idaho Airshed Group. Identify direct, indirect, and cumulative effects to air quality.

If dry weather conditions occur during the construction window, hauling and excavation activities would be expected to produce minor levels of airborne particulates derived from forest road materials. Short-term direct and indirect direct and indirect impacts to air quality may occur in the immediate project area; however, no long-term direct, indirect and cumulative impacts would be expected to occur.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify direct, indirect, and cumulative effects to vegetation.

The removal of several trees and minor, limited disturbance of other vegetation may occur in the immediate vicinity of the three road-stream crossing sites. Approximately 1/2-acre of existing forest land would be converted to road surface or road clearing limit. The riparian vegetation community at the entire upper Chicken Creek road-stream crossing site would be restored. No rare plants or cover types in the project area would be affected. A net very low, direct, indirect and cumulative impact to vegetation would occur.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify direct, indirect, and cumulative effects to fish and wildlife.

Approximately 1/2-acre of existing forest land would be converted to road surface or road clearing limit under the proposed activities, which would have a minor impact on terrestrial and avian habitats and disturbance of wildlife species that may use this site. However, the concurrent restoration of the riparian vegetation community at the entire upper Chicken Creek road-stream crossing site would offset these potential impacts.

Fisheries habitat features within and adjacent to the three road-stream crossings sites would be improved over existing conditions since full levels of stream channel form and function would be integrated in the proposed activities. Levels of native fisheries habitat connectivity throughout the entire Swede and Chicken creek watersheds would be greatly improved. Long-term risks of sedimentation of aquatic habitats within both watersheds would be greatly reduced.

Due to the small size and short duration of the proposed activities, minimal adverse direct, indirect or cumulative impacts to terrestrial or avian wildlife would be expected. Highly positive direct, indirect and cumulative impacts to fisheries and other aquatic life habitats in the project area would be expected.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify direct, indirect, and cumulative effects to these species and their habitat.

Bull trout are known to occur in Swede Creek and are listed as threatened under the Endangered Species Act and identified as a DNRC Sensitive Species. Westslope cutthroat trout are known to occur in Chicken Creek and are identified as a DNRC Sensitive Species. Highly positive direct, indirect and cumulative impacts to fisheries and other aquatic life habitats in the project area would be expected (see #8 above).

No detectable changes in open road densities or security habitat for grizzly bears would be anticipated with the construction of the new, gated “by-pass” road. Improvements in preferred riparian habitats would offset any negligible reductions in visual screening from the existing open road. Loss of roughly 1/2-acre of forested travel/other Canada lynx habitats would not alter lynx use of the area; no other changes to lynx habitats would be anticipated. Overall, minimal adverse direct, indirect or cumulative impacts to these species would be expected (see #8 above).

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine direct, indirect, and cumulative effects to historical, archaeological or paleontological resources.

NONE.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify direct, indirect, and cumulative effects to aesthetics.

All of the proposed activities involve forest road features that already occur in the project area or would otherwise be expected to occur on designated forest management lands. As a result no additional direct, indirect, and cumulative effects to aesthetics would occur.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify direct, indirect, and cumulative effects to environmental resources.

NONE.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

The proposed activities would meet the goals and objectives for fisheries resources outlined in the Restoration Plan for Bull Trout in the Clark Fork River Basin and Kootenai River Basin, Montana (2000), the Memorandum of Understanding and Conservation Agreement for Westslope Cutthroat Trout and Yellowstone Cutthroat Trout in Montana (2007), BMPs for fish passage, and forest management ARMs.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

The operation of excavation and other construction equipment by one or more contractors within the project area may pose a safety risk to contractor and DNRC personnel. All contractors working on behalf of the DNRC would be required to follow state and federal occupational safety guidelines.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

The proposed activities would be expected to have a minor positive effect on forest management activities in the Stillwater State Forest, since an existing transportation and BMP issue at the upper Chicken Creek road-stream crossing site would be addressed, and the long-term costs to improve all three road-stream crossing sites would not need to be integrated into future forest management proposals.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify direct, indirect, and cumulative effects to the employment market.

It is unknown exactly how the number or status of jobs would be affected by the proposed activities; however, the cost to implement the proposed activities is expected to be approximately $45,000 and this would be expected to have a positive direct, indirect and cumulative impact to the regional employment market.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify direct, indirect, and cumulative effects to taxes and revenue.

It is unknown exactly how tax revenue would be affected by the proposed activities; however, the cost to implement the proposed activities is expected to be approximately $45,000 and this would be expected to have a positive direct, indirect and cumulative impact to tax revenue at one or more governmental levels.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify direct, indirect, and cumulative effects of this and other projects on government services

NONE.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

See #13 above.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify direct, indirect, and cumulative effects to recreational and wilderness activities.

Reconstruction of the Swede Creek CMP on the Upper Whitefish Road would take 3 – 5 days, and during this time public access would be routed around the site via the Antice Loop Road. Reconstruction of the Chicken Creek CMP on the Lower Whitefish Road would take 3 – 5 days, and during this time public access would be routed around the site via Olney and the Upper Whitefish Road. Advance notice of the detours

would be placed in local newspapers. A short-term, low direct and indirect effect to associated recreational area access would occur due to the detours, but no long-term or cumulative effects would occur.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify direct, indirect, and cumulative effects to population and housing.

NONE.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

NONE.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

NONE.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify direct, indirect, and cumulative economic and social effects likely to occur as a result of the proposed action.

See #15 above.

EA Checklist Prepared By:	**Name:**	Jim Bower	**Date:**	4/27/10
	Title:	Fisheries Program Specialist		

V. FINDING

25. ALTERNATIVE SELECTED: The Action Alternative

Upon review of the Checklist EA and attachments, I find the Action Alternative, as proposed, meets the intent of the project objectives as stated in *Section I – Type and Purpose of Action*. Action is needed to address a short deteriorating culvert, fish passage barriers and habitat loss. The Action Alternative addresses the need in a way that:

- Would remove a fish passage barrier on Swede Creek
- Levels of native fisheries habitat connectivity throughout the entire Swede and Chicken creek watersheds would be greatly improved.
- Long-term risks of sedimentation of aquatic habitats within both watersheds would be greatly reduced.
- Highly positive direct, indirect and cumulative impacts to fisheries and other aquatic life habitats in the project area would be expected.

26. SIGNIFICANCE OF POTENTIAL IMPACTS: After a review of this Checklist Environmental Assessment, Department policies, standards, and guidelines, I find that all of the identified resource management concerns have been fully addressed. Specific project design features and various recommendations of the resource management specialists have been implemented to ensure that this project will fall within the limits of acceptable environmental change. No project activities are being conducted on important fragile or unique sites. In summary, I find that the identified adverse impacts will be controlled, mitigated, or avoided by the design of the project to the extent that the impacts are not significant.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

EA Checklist Approved By:	**Name:**	Brian Manning
	Title:	Stillwater Unit Manager
Signature: /S/ Brian Manning		**Date**: 6/11/2010