Montana Fish, Wildlife & Parks

1400 South 19th Avenue
Bozeman, MT 59718

May 17, 2011

To: Governor's Office, Mike Volesky, State Capitol, Room 204, P.O. Box 200801, Helena, MT 59620-0801
Environmental Quality Council, State Capitol, Room 106, P.O. Box 201704, Helena, MT 59620-1704
Dept. of Environmental Quality, Metcalf Building, P.O. Box 200901, Helena, MT 59620-0901
Dept. of Natural Resources & Conservation, P.O. Box 201601, Helena, MT 59620-1601
Montana Fish, Wildlife & Parks:

Director's Office	Parks Division	Lands Section	FWP Commissioners
Fisheries Division	Legal Unit	Wildlife Division	Design & Construction

MT Historical Society, State Historic Preservation Office, P.O. Box 201202, Helena, MT 59620-1202
MT State Parks Association, P.O. Box 699, Billings, MT 59103
MT State Library, 1515 E. Sixth Ave., P.O. Box 201800, Helena, MT 59620
James Jensen, Montana Environmental Information Center, P.O. Box 1184, Helena, MT 59624
Janet Ellis, Montana Audubon Council, P.O. Box 595, Helena, MT 59624
George Ochenski, P.O. Box 689, Helena, MT 59624
Jerry DiMarco, P.O. Box 1571, Bozeman, MT 59771
Montana Wildlife Federation, P.O. Box 1175, Helena, MT 59624
Wayne Hurst, P.O. Box 728, Libby, MT 59923
Jack Jones, 3014 Irene St., Butte, MT 59701
Jack Atcheson, 2309 Hancock Avenue, Butte MT 59701
Beaverhead Conservation District, 420 Barrett Street, Dillon, MT 59725
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
U.S. Fish and Wildlife Service, 420 Barrett Street, Dillon, MT 59725
Big Hole Watershed Committee, P.O. Box 931, Butte, MT 59703
Montana Trout Unlimited, P.O. Box 7186, Missoula, MT 59807
Dan Vermillion, FWP Commissioner, Livingston MT
Earnest and Colleen Bacon, 2215 Fishtrap Creek Road, Wisdom, MT 59761
Dept. of Natural Resources and Conservation, 730 N. Montana Street, Dillon, MT 59725-9424
George Grant Chapter of Trout Unlimited, P.O. Box 563, Butte, MT 59703
Skyline Sportsmen, P.O. Box 173, Butte, MT 59703
Anaconda Sportsmen, 2 Cherry, Anaconda, MT 59711

Ladies and Gentlemen:

The enclosed Environmental Assessment (EA) has been prepared to propose the introduction of fertilized westslope cutthroat trout eggs from York Gulch into a currently fishless private pond on York Ranch. This introduction would conserve the few remaining cutthroat trout left in York Gulch, rear them in the pond, allow them to spawn, and use the progeny to restock York Gulch and other waters. Harvest of York Gulch Pond introduced fish will be prohibited.

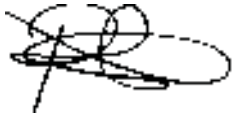
This EA is available for review in Helena at FWP's Headquarters, the State Library, and the Environmental Quality Council. It may also be obtained from FWP at the address provided above, or viewed on FWP's Internet website: http://www.fwp.mt.gov .

Montana Fish, Wildlife & Parks invites you to comment on the attached proposal. Public comment will be accepted until June 2nd, 2011 @ 5:00 pm. Comments should be sent to the following:

Montana Fish, Wildlife & Parks
York Ranch Pond Westslope Cutthroat Introduction
Attn: Jim Olsen
1820 Meadowlark Ln.
Butte, MT 59701

Or e-mailed to: jimolsen@mt.gov

Sincerely,



Patrick J. Flowers
Region Three Supervisor

DRAFT
ENVIRONMENTAL ASSESSMENT
WESTSLOPE CUTTHROAT TROUT INTRODUCTION
INTO YORK RANCH POND

May 2011

PART I. PROPOSED ACTION DESCRIPTION

Project Title: Introduction of Westslope Cutthroat Trout into York Ranch Pond for Conservation Purposes

Project Location: York Ranch, Deerlodge County, Montana. T1N, R14W, Sec 20

Description of Project:

Background and Need:

Westslope cutthroat trout (WCT), Montana's state fish, has declined in abundance, distribution, and genetic diversity throughout its native range. Reduced distribution of WCT in Montana is particularly evident in the Missouri River drainage where genetically pure populations are estimated to reside in less than 5% of their historic habitat. Major factors contributing to the decline of WCT include competition with non-native trout (brook, brown, and rainbow trout) that were first introduced to Montana in the 1890's, hybridization with rainbow and Yellowstone cutthroat trout, habitat changes, over-exploitation, and isolation to small headwater streams. Due to continued threats, most remaining WCT populations in the Missouri River drainage are considered to have a low likelihood of long-term persistence (100 years) unless conservation actions are implemented.

Long-term conservation of WCT in upper Missouri River drainage will require projects that both conserve existing WCT populations in their native streams and establish new WCT populations in secure habitats where they face no threats from introduced nonnative trout. The primary strategy for establishing new WCT populations is to collect and introduce fertilized eggs or live fish from native WCT populations that have adapted to habitat conditions in the upper Missouri River drainage. By using existing populations as "donor" sources, introduced populations will have a greater chance for long-term persistence and may perpetuate locally adapted genetic characteristics (i.e., create a "genetic reserve").

Collection of a sufficient number of gametes or fish to establish new populations frequently requires collection efforts over several years because existing WCT populations often maintain relatively few individuals. The project proposed in this Environmental Assessment could significantly reduce this effort by placing embryos collected from a wild population into a secure pond where they would potentially mature and become a future "brood" source. Compared to stream-dwelling WCT, WCT reared in a pond may be significantly larger, therefore producing more eggs for restoration efforts and be more readily captured for spawning purposes.

The WCT population in York Gulch has been severely reduced due to competition with and predation from brook trout. It is highly probable that within only a few years the remaining WCT in York Gulch could go extinct due to brook trout. Efforts are underway to reduce the threats of brook trout on this population of WCT (i.e., fish barriers in York Gulch and West Fork Mudd Creek), but such efforts will not likely have a substantial effect for several years to come. In the interim, the collection of fertilized eggs from this population of cutthroat will not only aid in the conservation of the population but will also greatly facilitate future restoration of WCT in York Gulch and the West Fork of Mudd Creek. The creation of a brood source from York Gulch in York Ranch Pond will therefore help conserve the York Gulch population until the non-native brook trout can be removed from the stream.

Proposed Action:

Montana Fish, Wildlife and Parks (FWP) is proposing to use an existing private pond on the York Ranch (free of charge) to rear wild WCT for conservation purposes (see Appendix A for agreement between FWP and Big Hole River, LLC). The intended source of fish for the pond would be progeny from York Gulch, a small, non-hybridized population of westslope cutthroat trout located in the same drainage as the pond. If a sufficient number of eggs cannot be collected from the York Gulch population, other local WCT populations may be considered for introduction in the pond. Once these fish reach sexual maturity (three to five years), they would provide a source of gametes for WCT conservation efforts in York Gulch, the West Fork of Mudd Creek, and potentially in other areas in the Big Hole River drainage. It is expected that introduced WCT will grow to a much larger size than what they would achieve in their natal streams. Larger size translates into larger and more eggs that can be harvested for conservation projects. This project would create a genetic reserve for local, "at risk" WCT populations within the upper Big Hole River drainage.

Timeframe and specific strategies:

1. *Collect eggs from York Gulch population.* Gametes would be collected during spring of 2011 from York Gulch by FWP staff. Fish will be captured by electrofishing or trapping at known spawning locations in the stream. Because of the low density of cutthroat trout in York Gulch, all sexually mature females captured will be used for this project. Eggs collected from females may be split into different lots and spawned with multiple males to increase the number of individuals contributing to the fertilized eggs. FWP anticipates the gamete collection efforts will be completed within two years. Prior to being released back to the stream, each donor fish will be marked with an adipose fin clip so they are not spawned again in subsequent years.

   The foremost goal of the proposed project is to conserve characteristics of locally-adapted WCT populations, particularly in York Gulch. If egg collections from York Gulch are successful and fish are introduced into the pond, it is anticipated that they will obtain a much larger size (fourteen to eighteen inches) versus fish in York Gulch (eight to nine inches). The advantage of larger fish is that a greater number of eggs could be collected for each female which would enhance restoration efforts. Other potential donor sources

from nearby streams may be considered if egg collections from York Gulch are not successful. Nearby streams with non-hybridized populations of westslope cutthroat trout include McVey Creek, Doolittle Creek, Peterson Creek, and Papoose Creek. If unexpected events (e.g., presence of disease) prevent collection of an adequate number of eggs or fish from these populations, or if new knowledge indicates it is important to conserve characteristics of other local populations, additional WCT populations in the Big Hole River Basin would then be evaluated for introduction purposes.

Any WCT population that is used as a donor source will first be evaluated for genetic purity and presence of pathogens. A minimum of 50 genetic and 60 health samples from different fish would have to be collected and analyzed. This minimum requirement has already been met for the York Gulch population of cutthroat trout. Only fish or eggs from pure populations and populations that do not test positive for important pathogens will be used to stock the pond.

2. *Egg and fry incubation – Sun Ranch Fish Hatchery.* Fertilized eggs will be immediately moved to the Sun Ranch Fish Hatchery near Ennis, Montana, for rearing. This private hatchery was built in 2002 specifically for WCT restoration projects. Eggs allotted to the York Ranch Pond effort will be allowed rear to the eyed stage at the Sun Ranch facility then transferred to the York Pond for hatching in remote streamside incubators (RSI).

3. *York Ranch Pond.* Introduced fish would rear in the York Ranch Pond for two to four years until they are sexually mature. Gametes would then be collected for stocking into restoration streams including but not limited to York Gulch and the West Fork of Mudd Creek.

Additional Information

York Ranch Pond: The man-made pond is 1.1 acres with a maximum depth of 15 feet. The pond was constructed in 2009 and is not located within a natural waterway nor is it influenced by irrigation water. The pond is fed by an artesian spring that is piped directly from its source near the corrals to the pond through a four-inch pipe. The outlet of the pond is an agridrain (www.agridrain.com/) that flows out into a fen before entering an unnamed tributary to York Gulch (Figure 1). There is no possibility of wild fish entering the pond from York Gulch or through irrigation water. The possibility of fish escapement from the pond is unlikely because the agridrain structure is located near the bottom of the pond and is screened at its apex before discharging to the fen. FWP and the owners of the York Ranch Big Hole River Ranch, LLC will sign an official agreement prior to the initiation of the project stipulating that WCT stocked in the pond are for conservation purposes and that recreational harvest of these fish is prohibited.

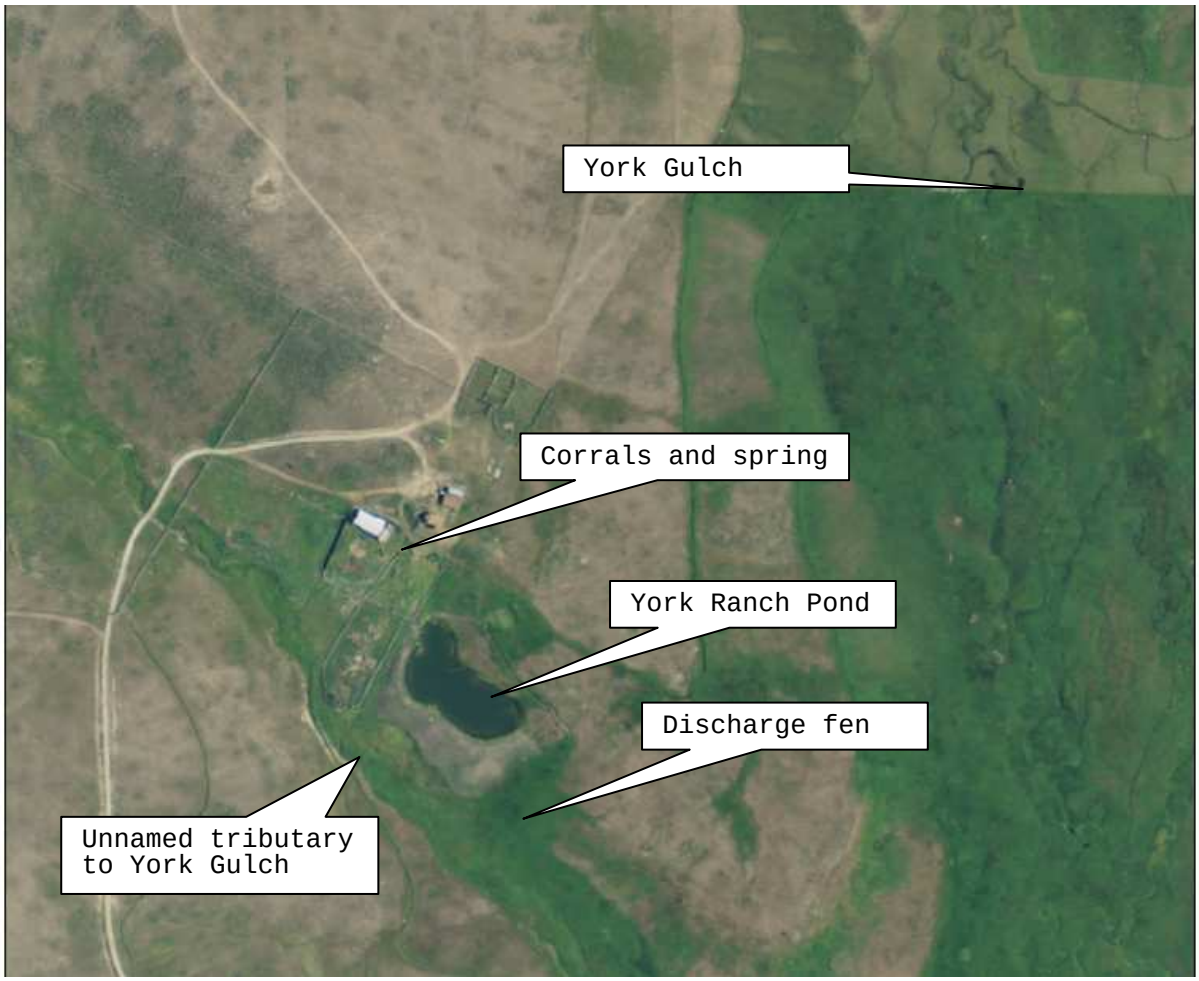


Figure 1. Aerial photo of York Gulch Pond showing adjacent features.

PART II. ALTERNATIVES ANALYSIS

Alternative 1: The "No Action" Alternative

The York Ranch Pond is currently licensed for stocking with westslope cutthroat trout. If no action were taken, the owners of the ranch would purchase westslope cutthroat trout from a private certified hatchery and stock the pond. These fish would have no conservation value because they are of hatchery origin and potentially not adapted to the local conditions in the Big Hole drainage. The opportunity to conserve fish from York Gulch in a pond within the same drainage will have been lost with the stocking of hatchery fish.

Alternative 2: Proposed Action

Under the proposed action, fertilized eggs from York Gulch or other nearby sources would be collected and introduced into the York Ranch Pond. Gametes from these fish would be harvested in two to four years and used for other conservation projects including, but not limited to, York

Gulch and the West Fork of Mudd Creek.

Other groups or agencies contacted or which may have overlapping jurisdiction:

- The Montana Fish, Wildlife & Parks Fish Health Committee reviewed fish health aspects of the proposal.
- Big Hole River Ranch, LLC, York Ranch (Peter Frick)
- Sun Ranch, LCC

PART III. ENVIRONMENTAL REVIEW

Table 1. Potential impact on physical environment.

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Unique, endangered, fragile, or limited environmental resources				X		
2. Terrestrial or aquatic life and/or habitats			X		No	See comment 1.2
3. Introduction of new species into an area			X		No	See comment 1.3
4. Vegetation cover, quantity and quality				X		
5. Water quality, quantity and distribution (surface or groundwater)				X		
6. Existing water right or reservation				X		
7. Geology and soil quality, stability and moisture				X		
8. Air quality or objectionable odors				X		
9. Historical and archaeological sites				X		
10. Demands on environmental resources of land, water, air & energy				X		
11. Aesthetics				X		

Comments

Comment 1.2. The private pond associated with the proposed action is man-made, therefore the aquatic community (aquatic invertebrates and amphibians) occupying the pond have recently colonized the newly created habitat. Aquatic invertebrates and amphibians existing in the pond are likely to be preyed upon by stocked fish; however, it is unlikely that any rare species would be impacted in the manmade pond. Furthermore, FWP has permitted the landowner to stock fish from a hatchery source into this pond, so the potential impacts from wild trout source would be identical to those from a hatchery source.

Comment 1.3. WCT would be stocked into a manmade pond that is currently fishless, the intent of the action. WCT were historically present throughout the York Gulch drainage, however, they are now rare and generally limited to the headwater streams in the drainage. Screens will be placed on the pond outlet to ensure that stocked WCT do not escape the pond.

A potential impact of transferring wild eggs and hatchery-reared fish is the introduction of fish pathogens to the pond and York Gulch. To address this concern, fish samples were collected from York Gulch in 2008 and were found to be disease free. This disease certification will be valid for the egg take proposed in 2011, but additional samples will need to be collected from York Gulch if future egg takes are proposed. If donor sources other than York Gulch are used to stock York Ranch Pond, they will undergo similar disease certification prior to fish introduction. Donor fish populations that test positive for important pathogens (e.g., whirling disease) would not be used for this effort.

Table 2. Potential impacts on human environment.

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Social structures and cultural diversity				X		
2. Changes in existing public benefits provided by wildlife populations and/or habitat			X		Yes	See Comment 2.2
3. Local and state tax base and tax revenue				X		
4. Agricultural production				X		
5. Human health				X		
6. Quantity and distribution of community and personal income				X		
7. Access to and quality of recreational activities				X		
8. Locally adopted environmental plans & goals (ordinances)				X		
9. Distribution and density of population and housing				X		
10. Demands for government services				X		
11. Industrial and/or commercial activity				X		

Comment 2. The purpose of collecting fertilized eggs from York Gulch is to conserve the WCT population in the stream so that that the population does not become extinct due to the impacts of brook trout. By conserving the genetic characteristics of the cutthroat population in the fish introduced to the pond, WCT can be eventually restored to York Gulch by removing

brook trout. WCT restoration in York Gulch will require fish barriers in York Gulch and the West Fork of Mudd Creek. It is possible that the existing WCT population could become extinct in York Gulch before adequate fish barriers are in place. This would mean that the genetics of the York Gulch population would be lost. The introduction of fertilized eggs into the York Ranch Pond would aid in conserving the WCT in York Gulch while said barriers are constructed and evaluated. Brook trout could be removed and fertilized eggs from WCT in the York Ranch Pond could be used to repopulate the stream once these barriers are in place.

Does the proposed action involve potential risks or adverse effects that are uncertain but extremely harmful if they were to occur?

No. FWP has experience using ponds as rearing facilities for brood fish used in cutthroat restoration.

Does the proposed action have impacts that are individually minor, but cumulatively significant or potentially significant?

No.

Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

By agreement with the landowner, FWP will provide progeny of wild WCT for stocking of the pond and will manage the pond as a brood source. The landowner will not be permitted to harvest WCT from the pond (see Appendix A).

PART IV. ENVIRONMENTAL IMPACT STATEMENT REQUIRED?

After considering the potential impacts of the proposed action and possible mitigation measures, FWP has determined that an Environmental Impact Statement is not warranted. The impacts of WCT introduction to the York Pond as described in this document are minor and/or temporary, and mitigation of the impacts is possible. The primary impact as a result of this project is the temporary reduction in aquatic invertebrates as a result of predation by fish. This impact would be minor because the pond is an artificial water body and does not likely contain rare or unique invertebrates. The creation of the brood source in the pond will facilitate future WCT conservation efforts in the York and West Fork of Mudd Creek drainages.

PART V. PUBLIC PARTICIPATION

Duration of comment period:

The public comment period for this proposal is from May 17, 2011, to June 2, 2011.

Written comment can be mailed to:

Jim Olsen
Montana Fish, Wildlife & Parks
1820 Meadowlark Lane
Butte, MT 59701
jimolsen@mt.gov

EA prepared by:

Jim Olsen
Fisheries Biologist
Montana Fish, Wildlife & Parks
Butte, MT 59701
406-533-8451

Appendix A.

Agreement between FWP and Big Hole River, LLC

COOPERATIVE AGREEMENT

Between

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS,

THE OWNERS OF THE YORK RANCH, BIG HOLE RIVER, LLC

This cooperative agreement (Agreement) is hereby made and entered into by and between Montana Fish, Wildlife & Parks (MFWP), and the Big Hole River, LLC.

1. BACKGROUND

Though once common, westslope cutthroat trout (WCT) are now a rare native fish species in the upper Missouri River basin of Montana and Wyoming. WCT distribution and abundance has declined significantly due to a variety of causes, including introductions of nonnative fish, habitat degradation, and over-exploitation. The declining status of WCT has led to its designation as a *Species of Special Concern* by the State of Montana, a *Sensitive Species* by the U.S. Forest Service, a *Special Status Species* by the U.S. Bureau of Land Management, and a *Species of Management Concern by* the National Park Service. Numerous state, federal and private entities in 1999 and 2007, including MFWP, were signatories of conservation agreements that called for protection and expansion of existing WCT populations and restoration of WCT to selected suitable habitats within their historic range.

A private pond constructed in 2009 on the York Ranch has not been stocked with fish. York Gulch harbors a non-hybridized population of westslope cutthroat trout that is at risk of extirpation. Owners of the York Ranch have offered the use of their pond as a reserve for fish from York Gulch (or other nearby sources) to preserve the population of fish and aid in future restoration projects. Fish introduced into the pond would be spawned once achieving sexual maturity and used to repopulate York Gulch and potentially other streams in the Big Hole drainage.

2. PURPOSE

The purpose of this Agreement is to establish commitment and cooperation between MFWP and the Big Hole River, LLC for use of the pond as a rearing area for westslope cutthroat trout from York Gulch or neighboring streams for future fisheries restoration purposes.

3. AUTHORITY

- Montana Department of Fish, Wildlife & Parks enters into this agreement under the authority of Title 87-1-210 MCA, and Title 87-5-101, MCA, et seq.

4. RESPONSIBILITIES, PROCEDURES, AND TERMS OF AGREEMENT

The parties' respective responsibilities under this Agreement are as follows:

A. MFWP agrees to:

1. Direct WCT introduction to the pond in a manner consistent with established MFWP fish hatchery, fish disease and WCT restoration protocols.
2. Provide resources necessary to collect wild WCT eggs and introduce them to the pond.

B. Big Hole River, LLC agrees to:

1. Provide access to MFWP for fish introduction, brood stock monitoring and future egg collections. Access shall be coordinated through Peter Frick.
2. Not introduce or stock the pond with privately owned fish for the duration of this agreement.

5. STIPULATIONS

- **Recreational fishing of the brood pond:** Harvest of fish introduced to the pond is prohibited. Only single-barbless hooks can be used to catch and release fish. Captured fish are to be handled with methods that reduce potential injury, and then immediately released back to the pond.
- **WCT brood ownership:** MFWP possesses complete management authority and ownership of WCT occupying the York Ranch brood pond. At MFWP's discretion, WCT may be removed from the brood pond.
- This Agreement is subject to, and is intended to be consistent with, all applicable Federal and State laws and interstate compacts.
- This Agreement in no way restricts the parties involved from participating in similar activities with other public or private agencies, organizations, or individuals.

6. DURATION, MODIFICATION AND TERMINATION OF AGREEMENT

This Agreement is for a six-year period, effective from May 1, 2011 to April 30, 2017. This Agreement and its duration may be modified only by written consent of all parties. The Agreement may be terminated by the parties with 30 days written notice.