Montana Fish, Wildlife & Parks

Notice of Decision

Removal of Nonnative Fishes with Rotenone and Restoration of Westslope Cutthroat Trout to Hyde Creek -Two Medicine Drainage

May 13, 2014

Project Proposal and Justification:

Montana Fish, Wildlife & Parks (FWP) proposes the removal of nonnative brook trout from Hyde Creek in the Two Medicine Drainage. Following removal of nonnative brook trout, FWP proposes transferring fish or fertilized eggs to Hyde Creek from one of the last two non-hybridized westslope cutthroat trout populations in the Two Medicine Drainage.

Hyde Creek originates along the Rocky Mountain Front and flows north until its confluence with South Fork Two Medicine River. Hyde Creek is within the Lewis and Clark National Forest and accessible by trails. Historically, the Two Medicine River watershed supported westslope cutthroat trout (*Oncorhynchus clarkii lewisi* - WCT) throughout 857 miles of stream. Non-hybridized westslope cutthroat trout now reside in approximately 6 miles within the larger Two Medicine watershed and are absent in Hyde Creek and its tributaries. Nonnative brook trout are present in Hyde Creek and nonnative rainbow trout and brook trout are common in the adjacent South Fork Two Medicine River. As a steep waterfall blocks fish passage near the mouth of Hyde Creek, Hyde Creek may have been historically fishless. Alternatively, westslope cutthroat trout may have been present in Hyde Creek many years ago and have been subsequently displaced by brook trout because of stocking efforts. Barrier falls or other features blocking fish are a primary reason any non-hybridized and slightly hybridized westslope cutthroat trout remain in the Missouri River Drainage. The scenario of local extinction of non-hybridized westslope cutthroat trout and replacement by hybrids or nonnative trout is common in the Missouri River Basin, with non-hybridized populations occupying less than 4% of their historic habitat.

The reduced abundance and distribution of westslope cutthroat trout within its historic range, especially east of the Continental Divide, has spurred considerable concern over the persistence of the subspecies, and has resulted in lawsuits to include westslope cutthroat trout for protection under the Endangered Species Act. Although the U.S. Fish and Wildlife Service has decided listing was unwarranted, fisheries managers, conservation groups, tribes, and various industry concerns joined to form the Montana

Cutthroat Trout Steering Committee to guide restoration of westslope cutthroat trout and Yellowstone cutthroat trout within their historic ranges. This collaboration has resulted in development of a Memorandum of Understanding designed to ensure the long-term, self-sustaining persistence of westslope cutthroat trout. This project is consistent with the third objective of the Memorandum of Understanding, which calls for re/establishing non-hybridized populations of westslope cutthroat trout where they have been extirpated within their historical range. The action is also consistent with Montana Fish, Wildlife & Parks' Statewide Fisheries Management Plan, which seeks to restore non-hybridized westslope cutthroat trout to approximately 20% of their historic range.

The EA considered 3 Alternatives:

1. No action.
2. Removal of fish using rotenone, followed by reintroduction of non-hybridized westslope cutthroat trout transferred from a nearby, wild source. Piscicide treatment would be limited to waters within the project area by detoxification with potassium permanganate (See attached map)
3. Removal of brook trout using mechanical means, such as electrofishing, angling, or both, followed by reintroduction of non-hybridized westslope cutthroat trout.

Alternative 3 was eliminated from consideration because of personnel costs and the size and complexity of the drainage. Alternative 3, if attempted would take a minimum of 6 years of intensive electrofishing with little chance of success. Alternative 2 was selected as the preferred alternative. Evaluation of the potential effects of this approach indicates it would have minor, short-term effects on water quality lasting no more 2 to 3 days. During the treatment, potassium permanganate would detoxify rotenone at the downstream extent of the project area (see attached map). Rotenone is toxic to gilled organisms at exceedingly low concentrations, resulting in a temporary reduction of gilled aquatic invertebrates, although many species are resilient to this level of rotenone. The concentration of rotenone needed to kill fish is far below levels that would be harmful to other organisms exposed to rotenone. Mitigation would relate to actions that minimize the concentration of rotenone in treated waters, limiting the spatial extent of rotenone treatment to only Hyde Creek, and ensuring protection of the public during application. Conducting a bioassay would allow determination of the lowest effective concentration of rotenone necessary to achieve project goals. The proposed action also involves re-introduction/introduction of native westslope cutthroat trout obtained from a nearest neighbor population. We propose a transfer of non-hybridized WCT from Midvale Creek (Glacier National Park). Midvale Creek is currently a mixed population of hybridized fish (WCT x Rainbow Trout) and non-hybridized fish. Under the Preferred Alternative Midvale Creek WCT would be genetically tested prior to transfer to Hyde Creek. Non-hybridized WCT would be transferred via helicopter or horse packing. If Midvale Creek WCT were to develop into a hybrid swarm with no pure individuals prior to the time of transfer an alternative suitable population would be used.

The predicted benefits of Alternative 2 are:

- The replication of an existing non-hybridized population of westslope cutthroat trout would bring considerable conservation benefit. Several potential source populations are under continued threat of extirpation from catastrophic events such as floods, fire, and disease, and genetic problems associated with small population size. Midvale Creek, one of the proposed donors is under imminent threat of genetic extinction. A transfer to Hyde Creek would help protect the genetic legacy of Midvale Creek.

- The project would result in the restoration or introduction of westslope cutthroat trout into approximately 6 miles of stream within the historic range of westslope cutthroat trout.

- Steps towards conservation goals may result in reduction of justification for the inclusion of westslope cutthroat trout for protection under the Endangered Species Act. Listing under the Endangered Species Act could result in numerous federally mandated regulatory restrictions.

- This project would result in a rare opportunity to fish for one of Montana's native trout in a relatively remote location with a high potential for solitude.

Public Involvement:

In compliance with the Montana Environmental Policy Act, an Environmental Assessment (EA) was prepared and circulated for public comment from November 14, 2014 to December 14, 2014. A scoping letter, which included a project summary and area map, was mailed to landowners 10 miles downstream and upstream of the project area. Local landowners, grazing lessees on National Forest Allotments, conservation groups, non-governmental organizations, governmental organizations, and tribal governments were also informed with the scoping letter. Copies of the EA were made available at the State Library in Helena, the FWP Region 4 Headquarters in Great Falls, and the FWP internet web site.

Several e-mails and phone calls from a landowner on the South Fork Two Medicine near the project area were received requesting additional information on the project. The contact person witnessed a piscicide treatment that occurred on the Marias drainage in 1956 and was concerned about impacts of the proposed treatment. FWP personnel explained in detail that the proposed project is much smaller in scale and how the current use of rotenone is much more tightly regulated and precise than in 1956. FWP assured the landowner that rotenone would be detoxified with potassium permanganate prior to entering the South Fork Two Medicine. In addition, only the lowest concentration needed to kill non-native fish would be used. After a number of e-

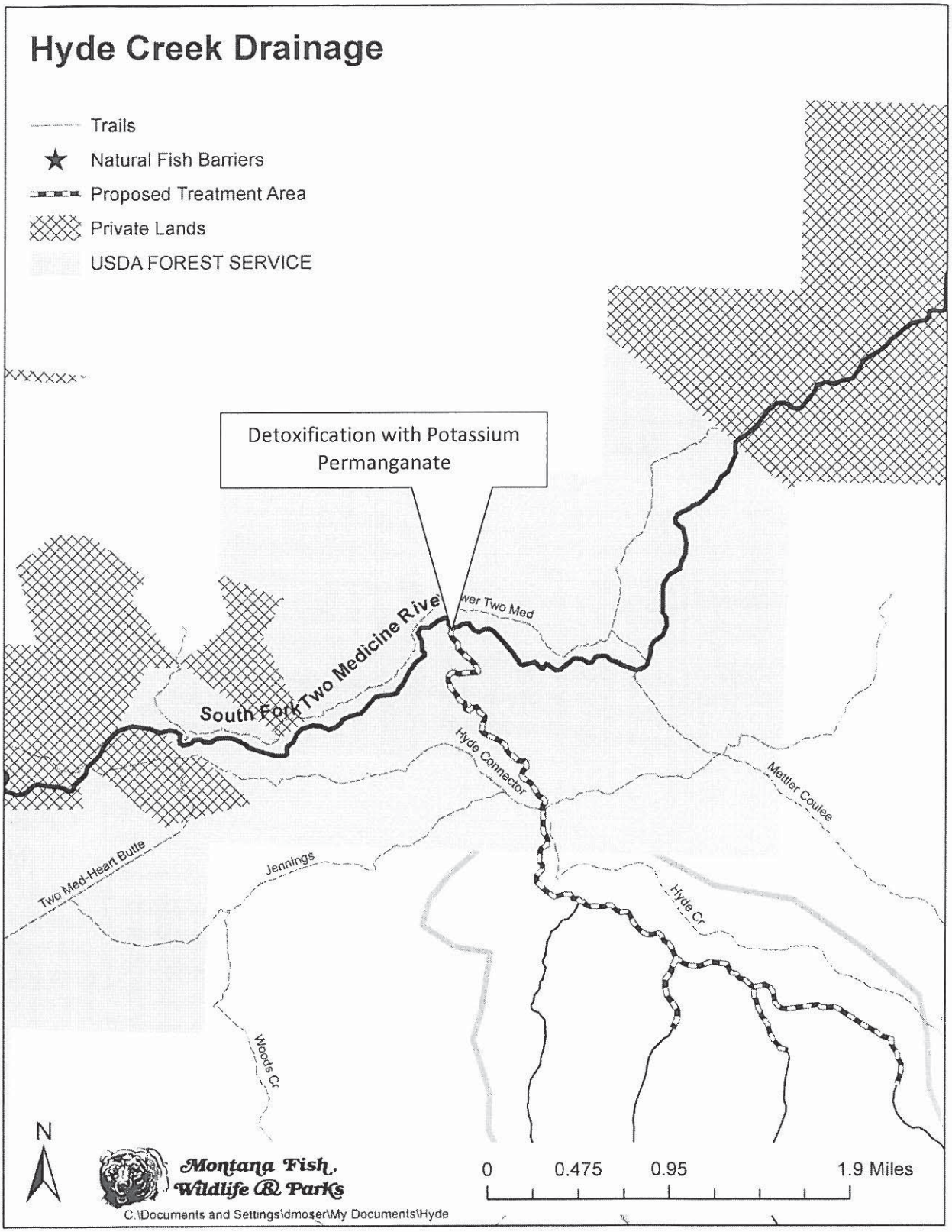
mails the contact person had a much better idea of the scope of the project and concerns appeared to have been assuaged.

Decision:

Based on the Environmental Assessment, public comment, and the current high risk of extinction of genetically pure westslope cutthroat trout in the Two Medicine drainage, it is my decision to proceed with Alternative 2, the proposed action. Alternative 2 involves removal of fish populations of non-native brook trout and establishment of a pure, locally derived, population of westslope cutthroat trout. The Draft Environmental Assessment, together with this Decision Notice, will serve as the final document for this proposal. This alternative provides the best opportunity to benefit the conservation and restoration of westslope cutthroat trout, helps relieve Endangered Species Act listing pressure and also serves to illustrate the State's commitment to perpetuating native fish species. This project will help preserve westslope cutthroat trout in the Two Medicine Drainage by replicating one of the few remaining populations of westslope cutthroat trout and expanding the overall range of westslope cutthroat trout by an additional 6 miles. I find there to be no significant impact on the human or physical environment associated with this project, except to help ensure the long-term persistence of pure, locally adapted westslope cutthroat trout in the Two Medicine Drainage. Therefore I conclude the Environmental Assessment is the appropriate level of analysis, and that an Environmental Impact Statement is not required.

Gary Bertellotti
Region 4 Supervisor
Great Falls, Montana

Date: 5/20/2014


Hyde Creek Drainage
Trails
Natural Fish Barriers
Proposed Treatment Area
Private Lands
USDA FOREST SERVICE
Detoxification with Potassium Permanganate
South Fork Two Medicine Rive
ver Two Med
Hyde Connector
Mettler Coulee
Two Med-Heart Butte
Jennings
Hyde Cr
Woods Cr
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Montana Fish, Wildlife & Parks
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