

February 18, 2004

1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
 Fisheries Division
 Endangered Species Coordinator
 Water Resources Program Manager
 Great Falls Office
Montana Department of Natural Resources and Conservation
MT Environmental Information Center
Montana Audubon Council
State Historic Preservation Office
Lewis and Clark County Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
Montana State Library, Helena
Pat Barnes Chapter, Trout Unlimited, 62 Last Chance Gulch, Helena, MT 59601
Missouri River Fly Fishers, P.O. Box 1985, Great Falls, MT 59403
Christian and Nora Hohenlohe, Ox Bow Ranch, P.O. Box 215, Wolf Creek, MT 59648
Josephine Lahti, 1350 Craig Frontage Road, Wolf Creek, MT 59648
Robert Wirth, P.O. Box 225, 1000 MT Highway 434, Wolf Creek, MT 59648

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide partial funding to a project calling for the conversion of a flood irrigation system to a pivot sprinkler system on the Ox Bow Ranch. In exchange, the salvaged water created by the project would be converted to in-stream flow purposes for the period of 30 years (maximum time allowed by law). Additionally, the project calls for the installation of a fish screen on the diversion to eliminate the entrainment of fish into the irrigation system. The intent of the project is to enhance rainbow trout, brown trout and other species of fish that utilize Little Prickly Pear Creek for spawning and rearing habitat.

Please submit any comments that you have by 5:00 P.M., March 22, 2004 to Montana Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this proposed project is contingent upon approval of a "Change" application by the Montana Department of Natural Resources and

Conservation. The project also is contingent upon Fish, Wildlife and Parks Commission approval of funding through the Future Fisheries Improvement Program. If you have any questions, feel free to contact me at (406) 444-2432.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
e-mail: mlere@mt.state.us

ENVIRONMENTAL ASSESSMENT

Fisheries Division

Montana Fish, Wildlife and Parks

Little Prickly Pear Creek Irrigation Conversion and In-stream Flow Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 that directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purposes of improving wild fisheries. The legislature established a funding account to help accomplish this goal.

Montana's Water Use Act encourages "the water resources of the state...be protected and conserved to assure adequate supplies for public recreational purposes and for the conservation of wildlife and aquatic life" (85-1-101(5), MCA).

This project is being proposed to undertake a water conservation project with Christian and Nora Hohenlohe on the Ox Bow Ranch. The Hohenlohe's would meet their irrigation needs by converting from flood to sprinkler irrigation on approximately 150 acres of hay land. The project calls for the installation of four half pivot irrigation systems and one full pivot irrigation system. The installation of these new irrigation systems will reduce the quantity of water diverted from Little Prickly Pear Creek. The point of diversion is located about two miles upstream from the junction with the Missouri River. In turn, the Hohenlohe's would convert the salvaged water created by the project to in-stream flow purposes. Since the property and associated water rights were acquired about five years ago, the Hohenlohe's have utilized about 30 cubic feet per second (cfs) of surface water from mid-April through mid-June, 15 cfs from mid-June through the first of August and 10 cfs from the first of August through mid-September to irrigate about 185 acres. The ranch has used water in a conservative manner since their recent usage has been considerably less than the actual water rights associated with the diversion (a total of 32.5 cfs). The existing ditch was designed to carry between 36 and 40 cfs. The proposed sprinkler system and fish screen would utilize about 3.5 cfs, resulting in a potential water savings of up to 26.5 cfs and averaging about 16 cfs over the irrigation season. This salvaged water will be converted to in-stream flow by the holders of the water rights for the maximum time allowed by law. Actual water savings, based on changes in consumptive use, will be quantified by the Montana Department of Natural Resources and Conservation (DNRC) during the formal change of use process.

I. Location of Project: This project will be conducted on Little Prickly Pear Creek on the Ox Bow Ranch located approximately 1 mile northeast of the town of Wolf Creek within Township 15 North, Range 4 West, Section 36 SESWSW in Lewis and Clark County (see Attachment 1).

II. Need for the Project: One goal within Montana Fish, Wildlife and Parks six-year operations plan for the fisheries program is to "restore and enhance degraded habitats" by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposed project would help achieve this goal.

Little Prickly Pear Creek is one of the two most important spawning and rearing streams for rainbow trout and brown trout in the reach of Missouri River located downstream of Holter Dam. Little Prickly Pear Creek provides significant recruitment of trout to this reach of river. This section of Missouri River supports a very popular recreational fishery and presently is the most heavily fished section of river in

Montana, receiving 123,000 angler days of use in 2001. Past spawning surveys have revealed more than 4,000 rainbow trout redds and 1,000 brown trout redds have been made annually within the lower 13 miles of the stream.

The Hohenlohe's have been very sensitive in protecting the aquatic habitat in Little Prickly Pear Creek by cutting back on the amount of water diverted and by screening adult fish from the ditch. However, their need to annually irrigate their hay field has continued to lead toward dewatering the lower 2 miles of the stream, as well as the entrainment of juvenile fish into the irrigation system. The proposed conversion to a sprinkler irrigation system would substantially reduce the rate of irrigation withdrawal, creating salvaged water dedicated toward enhanced in-stream flow. Additionally, the project calls for installation of a fish screen on the new irrigation system for the purpose of eliminating a significant source of entrainment of juvenile fish as they migrate back to the river.

This proposed water salvage project is located about two miles upstream from the confluence with the Missouri River. The intent of this proposed project is to create a more water efficient irrigation system and to increase the number of rainbow trout and brown trout in Little Prickly Pear Creek and the Missouri River.

III. Scope of the Project: The proposal calls for providing payment to Christian and Nora Hohenlohe to partially cover costs associated with converting a flood irrigation system to a series of five pivot irrigation sprinklers in an effort to improve water distribution on the cropland and to create salvaged water for in-stream flow (Attachment 2). The new system would irrigate about 150 acres of cropland. The area presently being irrigated by flooding totals about 185 acres. The quantity of salvaged water created for in-stream flow from this proposed project could total up to 26.5 cfs, averaging about 16 cfs over the irrigation season. Additionally, the project calls for installation of a fish screen on the new irrigation system to eliminate the entrainment of fish into the diversion. In exchange, the Hohenlohe's would convert the salvaged water created by the project to in-stream flow purposes for the maximum time allowed by law. The Hohenlohe's have claim to a total of 32.5 cfs in water rights from Little Prickly Pear Creek. These water rights are located second to the most downstream right on Little Prickly Pear Creek and are senior to the most downstream right. The relative priority date for the Hohenlohe water rights are 53rd and 57th of approximately 71 total water rights claimed on Little Prickly Pear Creek. The estimated cost of this proposal is \$230,685.00. Of this total, MFWP would contribute up to \$59,843.00 through the Future Fisheries Improvement Program with the stipulation that all of the salvaged water created from the project be converted to in-stream flow purposes for the maximum time allowed by law.

Although the parties have reached general agreement over this water salvage project, the conversion of the created salvaged water to in-stream flow purposes cannot be implemented until a "Change in Appropriation Water Rights" application is approved by DNRC. Any water user who feels they would be affected by this lease has an opportunity to object to the "Change" application. This project cannot be implemented until all objections have been resolved if, in fact, any objections are received.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment:

1. Terrestrial and aquatic life and habitats.

There will be no adverse impacts to fish or wildlife as a result of the proposed project. Implementation of this project could provide approximately 16 cfs of additional flow in Little Prickly Pear Creek and would remove a source of entrainment into the irrigation system by installing a fish screen. Additional in-stream flow in the lower 2 miles of Little Prickly Pear Creek is expected to improve fish passage, reduce water temperature and enhance over-all aquatic habitat. The project is expected to enhance the recruitment of trout to the Missouri River. Ultimately, the project is expected to enhance trout populations and the associated recreational fisheries in this very popular reach of the Missouri River.

2. Water quantity, quality and distribution.

No changes in drainage pattern or natural surface run-off would occur as a result of the proposed project. However, there would be an increase in the amount of in-stream flow found in the lower 2 miles of Little Prickly Pear Creek during the irrigation season.

Short-term increases in turbidity may occur during the installation of a fish by-pass pipe associated with the fish screen. To minimize turbidity, construction will occur during a low flow period and operation of equipment will not be allowed to occur in the active stream channel. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 310 permit will be obtained from the local Conservation District and the U.S. Army Corp of Engineers will be contacted for requirements needed to meet the federal Clean Water Act (404 permit).

3. Vegetation cover, quantity and quality.

Riparian vegetation and cover, primarily grasses, will be disturbed along a very short reach of the river margin during the installation of the by-pass pipe. Areas disturbed by construction will be re-seeded with native vegetation.

4. Aesthetics.

Aesthetics would be negatively impacted during project construction due to ground disturbance and the presence of heavy equipment. In the long term, aesthetics would be enhanced by augmenting stream flow in Little Prickly Pear Creek.

5. Demands on environmental resources of land, water, air and energy.

The ditch system presently used for flood irrigation requires no energy resources. Conversion to a sprinkler pivot system will require the use of electric powered pumps, creating a greater demand for electricity. Conversion to a sprinkler system is expected to result in a more efficient use of water.

6. Historic and archaeological sites

Because of the minimal ground disturbance associated with the proposed project, there is a very low likelihood that cultural properties could be impacted. Should cultural materials be inadvertently discovered during the project, the State Historic Preservation Office will be contacted and the site will be investigated.

VI. Explanation of Impacts on the Human Environment.

1. Agricultural or industrial production.

There are no anticipated adverse impacts to agricultural production as a result of the proposed project. The proposed conversion from flood to sprinkler irrigation will change the area of land under irrigation from the present approximately 185 acres to a proposed 150 acres. Conversion to a sprinkler system will make more efficient use of water and is expected to provide for a higher yielding crop.

2. Access to & quality of recreational activities.

It is anticipated that augmenting in-stream flow in Little Prickly Pear Creek would improve overall aquatic habitat and, as a result, would improve recruitment of trout to both the stream and the Missouri River.

3. Demands for energy.

Additional electrical energy will be needed to run the pumps for the new irrigation system.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the Hohenlohe's will continue to flood irrigate their cropland. The use of flood irrigation will remain inefficient and crop yield will not be improved. Lower Little Prickly Pear Creek will continue to suffer from dewatering and higher water temperatures during the hot summer months. Additionally, fish will continue to be entrained into the ditch system and the recruitment of juvenile trout and other fish will remain suppressed.

2. The Proposed Alternative

The proposed alternative is designed to augment in-stream flows and remove a source of entrainment by converting to a more water efficient irrigation system. This alternative is expected to improve fish and wildlife habitat in Little Prickly Pear Creek and increase the trout populations in the both stream and the Missouri River.

3. Alternatives considered but not recommended

Other means of increasing in-stream flows in Little Prickly Pear Creek are not feasible at this time for the following reasons:

- There are no existing or planned water storage projects within the Little Prickly Pear Creek drainage.
- Montana Law prevents the purchase of water rights for in-stream flows.
- To our knowledge, there are no other water rights in the lower Little Prickly Pear Creek drainage available for leasing or conversion to in-stream flow.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also is contingent upon approval by the Fish, Wildlife and Parks Commission.

Before this project can be implemented, the conversion of salvaged water to in-stream flow must be approved by DNRC. A “Change” application will be submitted to DNRC that will be publicly noticed in local newspapers. Any objections to the “Change” must be resolved before approval by DNRC. This application will be denied by DNRC if the proposed conversion is found to adversely affect the water rights of other users in the basin.

The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA also will be published on Montana Fish, Wildlife and Parks web page: fwp.state.mt.us.

3. Duration of comment period?

Public comment will be accepted through 5:00 P.M. on March 22, 2004.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
Montana Department of Fish, Wildlife and Parks
1420 East 6th Avenue
Helena, MT 59620

Telephone: (406) 444-2432
e-mail: mlere@mt.state.us

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS
 1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
 (406) 444-2535

ENVIRONMENTAL ASSESSMENT

Project Title Little Prickly Pear Creek Irrigation Conversion and In-stream Flow Project

Division/Bureau Fisheries Division-Future Fisheries Improvement

Description of Project This project is being proposed to undertake a water conservation project on Little Prickly Pear Creek with Christian and Nora Hohenlohe. The ranch would meet their irrigation needs by converting from flood to sprinkler irrigation with the installation of a series of center pivot irrigation systems. In exchange, the ranch would convert the salvaged surface water rights created by the project for the purpose of in-stream flow in Little Prickly Pear Creek. The proposed project is located on the Ox Bow Ranch approximately 1 mile northeast of the town of Wolf Creek in Lewis and Clark County.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats			X			X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture				X		
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy			X			X
9. Historical & archaeological sites				X		X

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production			X			X
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy			X			X
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping jurisdiction Montana Department of Natural Resources and Conservation, Lewis and Clark County Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historical Preservation Office
 Individuals or groups contributing to this EA: Steve Leathe, MFWP
 Recommendation concerning preparation of EIS: No EIS required.
 EA prepared by: Mark Lere
 Date: February 18, 2004