EA-92-11

MONTANA DEPARTMENT OF FISH, WILDLIFE & PARKS
1420 East Sixth Avenue Helena, MT 59620
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ENVIRONMENTAL ASSESSMENT

Division/Bureau FISHERIES

Project or Application Fish plants in Tenmile, Miner, Takepia and Blair Lake

Description of Project These plants are scheduled for summer 1992 to be accomplished through the use of a helicopter. The source of the plants is MDFWP hatchery system. These anticipated plants are first of record for the indicated species. The purpose of the plants is development of alpine fisheries in presently barren waters or augmentation of existing fisheries. Comments follow on attached pages.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Terrestrial & aquatic life and habitats				X		
2. Water quality, quantity and distribution				X		
3. Geology & soil quality, stability and moisture				X		
4. Vegetation cover, quantity and quality				X		
5. Aesthetics			X			✓
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources			X			✓
8. Demands on environmental resources of land, water, air and energy			X			✓
9. Historical and archaeological sites				X		

Tahepia, Tenmile, Miner

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Social structures and mores			X			
2. Cultural uniqueness and diversity			X			
3. Local and state tax base and tax revenue			X			
4. Agricultural or industrial production			X			
5. Human health				X		
6. Quantity and distribution of community and personal income			X			
7. Access to and quality of recreational and wilderness activities		X				
8. Quantity and distribution of employment			X			
9. Distribution & density of population & housing			X			
10. Demands for government services			X			
11. Industrial and commercial activity				X		
12. Demands for energy						
13. Locally adopted environmental plans and goals			X			
14. Transportation networks and traffic flows			X			

Other groups or agencies contacted or which may have overlapping jurisdiction USFS, Beaverhead Forest

Individuals or groups contributing to this EA MDFWP

Recommendation concerning preparation of EIS Not Needed

PER prepared by Richard A Oswald

Date June 4, 1992

Comment Period: 30 Days.

Hellroaring (Blair) Lake

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Social structures and mores			X			
2. Cultural uniqueness and diversity			X			
3. Local and state tax base and tax revenue			X			
4. Agricultural or industrial production			X			
5. Human health				X		
6. Quantity and distribution of community and personal income			X			
7. Access to and quality of recreational and wilderness activities		X				
8. Quantity and distribution of employment			X			
9. Distribution & density of population & housing			X			
10. Demands for government services			X			
11. Industrial and commercial activity				X		
12. Demands for energy						
13. Locally adopted environmental plans and goals			X			
14. Transportation networks and traffic flows			X			

Other groups or agencies contacted or which may have overlapping jurisdiction USBLM Dillon Resource Office

USDA - Experimental Sheep Station Dubois, Idaho

Individuals or groups contributing to this EA MDFWP

Recommendation concerning preparation of EIS Not Needed

PER prepared by Richard A. Oswald

Date June 4, 1992

Comment PER100: 30 Days

COMMENTS 1992 LAKE STOCKING EA
MDFWP REGION 3

Project: Salmonid plants in Tenmile, Miner, Tahepia, and Blair Lakes in Deerlodge and Beaverhead Counties.

Description of Project:

Tenmile Lake (Upper): This is a 17 acre lake in the Pintlar Range (T4N,R12W, Sec.31) which has been described as barren by local anglers. This observation was also made by a MDFWP team in August 1980. It is the largest in a chain of lakes known as the Ten Mile Lakes in the upper Ten Mile Creek drainage. The two lakes immediatly downstream (Middle and Lower) support reproducing populations of Yellowstone cutthroat trout. No record of introduction of these fish exists in DFWP files. The stream between the Upper and Middle lakes represents a migration barrier which has prevented colonization of the Upper lake.

Fish species currently found in Tenmile Creek include: cutthroat, rainbow, Rb X Ct hybrid, and eastern brook trout, mountain whitefish, mottled sculpin, long nose dace, white, longnose, and mountain sucker, and burbot. Electrophoresis performed on westslope cutthroat trout found them to be 9% introgressed with rainbow trout.

McBride Yellowstone cutthroat planted as young of the year fish should be compatible with other fish in the drainage and do not represent a threat to westslope cutthroat trout in the drainage as the fish present are already introgressed with rainbow.

Miner Lake (Lower): This is a 54 acre lake in the Beaverhead Mountains (T6S,R16W, Sec.9C) accessed by road from Jackson, MT. The Beaverhead National Forest maintains a large campground on the lake. Lower Miner Lake has been heavily stocked with rainbow trout and arctic Grayling in the past. The last grayling plant was in 1952 while the last rainbow plant was in 1966. The upper Miner Lakes support self sustaining populations of brook trout in one lake and rainbow trout in the other. Recent sampling of Lower Miner lake revealed self sustaining populations of eastern brook trout, arctic grayling, burbot, mountain whitefish, longnose and white sucker, and single cutthroat or cutthroat hybrid trout. No record of brrok trout introduction exists for lower Miner Lake. Angler creel information from the campground host at the lake indicated poor catch rates which were supported by low gill net samples.

Electrofishing samples in Miner Creek revealed weak populations of eastern brook trout, burbot, longnose sucker, and

mottled sculpin. Populations in the valley floor nearer the Big Hole River probably include some rainbow trout and may also include occasional fluvial arctic grayling.

In order to provide a more diverse and abundant fishery, we propose the stocking of young of the year McBride Yellowstone cutthroat into lower Miner Lake on a once every four year basis. This strain of cutthroat should adapt well to the limited growing season and productivity of Miner Lake and should provide more angling opportunity for the many recreationists that use the campground. We do not feel that the cutthroat would present a threat to the lacustrine grayling population that has been established in the lake. The brook trout which presently occupy the lake are much more aggressive competitors than cutthroat. Moreover, McBride Yellowstone cutthroat have been known to be compatible with wild grayling populations in Upper Red Rock Lake, Elk Lake, and Hyalite Reservoir in southwest Montana.

Tahepia Lake: Tahepia Lake is located in the east range of the Pioneer Mountains (T3S, R11W, Sec. 21CC) on the Beaverhead National Forest. The lake has supported a self sustaining population of rainbow trout that recently has diminished for reasons unknown at present. No stocking record exists for Tahepia Lake in DFWP files. Samples collected in 1982 revealed a relativly healthy population of wild rainbow trout while recent angler reports over the past 4-5 years indicate a signifigant decline.

The Jacobson Creek drainage has been known to support populations of unspecified cutthroat trout. However, Schulz Lakes, in the southern portion of the drainage have been stocked numerous times with Yellowstone cutthroat and have supported some natural reproduction for many years. Torrey Lake in the David Creek portion of the drainage has supported an abundant population of naturally reproducing yellowstone cutthroat for an indeterminate number of years. It is also unknown how many years Tahepia was planted with rainbow or how long the lake has maintained a wild population. Since Tahepia has supported a rainbow trout population, it is doubtfull that a new plant of rainbow trout would jeopardize any existing fish populations within the drainage.

The proposal to stock a wild strain of rainbow trout into Tahepia would utilize the Eagle Lake strain. A young of the year plant could bolster the dwindling resident population and reproduce in the wild at maturity. The lake could be monitored to determine if additional plants would be necessary in the future.

Blair (Hellroaring) Lake: This lake is located in the Centennial Mountains (T14S, R1E, Sec. 35C) on land managed by the USDA Experimental Sheep Station. The lake was last stocked in 1937 and 1940 with rainbow trout. All reports to date indicate that the lake is currently barren although it is certainly capable of supporting a trout population.

Blair Lake drains into Hellroaring Creek and Red Rock Creek. Past surveys demonstrate that these streams support small resident populations of eastern brook trout, some form of

Yellowstone cutthroat, longnose sucker, mottled sculpin, and burbot. In addition to these resident populations, these streams provide spawning and rearing habitat for adfluvial populations of yellowstone cutthroat, arctic grayling, and eastern brook trout from Upper Red Rock Lake.

The proposed plant in Blair Lake would utilize McBride Yellowstone cutthroat trout planted as young of the year to establish a mountain lake fishery along the new Continental Divide Trail. This strain of cutthroat was selected based on its superior survival and growth in alpine lake environs. Due to the distribution of Yellowstone cutthroat in Red Rock Lake and major tributaries, it is doubtfull that such a plant would pose a threat to any existing fisheries in the immediate drainage.

Potential Impact On Physical Environment: Potential impacts on the physical environment have largely been determined to be nonexistent with a few exceptions.

Minor impacts on aesthetics could result from increased angler use on improved existing fisheries and through development of fisheries in previously barren lakes. We feel that this impact is offset by the diversification of aesthetic enjoyment provided by fisheries in alpine lakes.

Minor impacts may be felt by other fish populations within the lake or within the drainage due to stocking. Particular care should be given to species of special concern in lieu of any threatened or endangered species occupying the waters under proposal. Species of special concern with potential interaction under this proposal include arctic grayling (Miner Lake and Hellroaring Creek drainage) and westslope cutthroat trout. The lakes and drainages selected under this proposal do not provide any known refugia for native westslope cutthroat trout. Electrophoresis conducted on specimens from Tenmile Creek showed introgression with rainbow trout. The Hellroaring - Red Rock Creek drainage supports a known population base of Yellowstone cutthroat trout. Miner lake and the Miner Creek drainage have provided collections of Yellowstone cutthroat on an infrequent basis. While no electrophoretic analysis has been done in the Jacobsen Creek drainage, Yellowstone cutthroat have been planted into Torrey and Upper and Lower Schulz Lakes and have established some degree of natural reproduction in all three for an indeterminate period of time. In addition to these Yellowstone cutthroat populations, rainbow trout have maintained a reproducing population in Tahepia Lake since their introduction of unknown origen. Adverse impact of cutthroat plants into grayling waters is expected to be minimal. The population utilizing the Hell Roaring - Red Rock drainage is adfluvial from Red Rock Lake. The population of Miner Lake is low density and originated from plants which ceased after 1952. Other regional population mixtures of grayling and cutthroat (Hyalite Reservoir, Elk Lake and Red Rock Lake) suggest that cutthroat trout can coexist with grayling in a lacustrine environ. This also applies to situations (Hyalite and Elk Lakes) where cutthroat trout are regularly planted over wild grayling populations.

Demands on environmental resources would be expressed as

angler use of improved populations or populations established in hitherto barren lakes. Due to the difficult logistics of reaching mountain lakes and the short season under which they can be fished, this impact is expected to be minor. Fish mortality and harvest resulting from anglers is compensated for by natural reproduction, where possible, and additional future plants.

Review Period: The MDFWP requests a maximum 30 day review period for this project proposal. Reasons for this request are the time period required to order fish for stocking in August 1992 and logistic planning necessary to accomplish the plants.