



Montana Fish, Wildlife & Parks

3201 Spurgin Road
Missoula, MT 59804
7 September 1999
406-542-5520

Governor's Office, Attn.: Julie Lapeyre, Capital Building, Helena, MT 59620
Environmental Quality Council, Helena, MT 59620
Dept. of Environmental Quality, PO Box 200901, Helena, MT 59620-0901
Montana Fish, Wildlife and Parks
 Fisheries Division, Helena, MT 59620
 Endangered Species Coordinator, Helena, MT 59620
 Missoula Regional Office, Missoula, MT 59804
State Historical Preservation Office (SHPO), PO Box 201202, Helena, MT 59620-1202
MT State Library, PO BOX 201800, Helena, MT 59624
Jim Jensen, MT Environmental Information Center, PO Box 1184, Helena, MT 59624-1184
MT Audubon Council, PO BOX 595, Helena, MT 59624
Deer Lodge Valley Conservation District, 1 Hollenback Road, Deer Lodge, MT 59722
Granite County Conservation District, PO Box 926, Philipsburg, MT 59858
Environmental Protection Agency, Federal Building, Helena, MT 59601
Army Corps of Engineers, 301 South Park Ave., Helena, MT 59601
US Fish and Wildlife Service, 100 No. Park Ave., Helena, MT 59601
Western Montana Fish and Game Assoc. Box 4294, Missoula MT. 59801
State Bulletin Board

Dear Ladies and Gentlemen:

The enclosed Environmental Assessment (EA) is enclosed for your consideration. It was prepared for the proposed **Trout Creek Renaturalization Project**. The project includes:

1. Channel renaturalization by returning straightened portions of Trout Creek into its original channel and using large woody debris, stems, root wads and native woody vegetation on the outside of several stream bends in order to stabilize eroding banks and restore fish habitat;
2. Channel stabilization by placing large woody debris, stems and root wads on the outside of several stream bends in order to stabilize eroding banks, improve fish habitat and restore the riparian woody vegetative communities;
3. Wetland construction and restoration through the filling of wetland drainage ditches and building new open water wetlands for material to fill the remaining channelized stream reaches; and
4. Improving water quality by removing two concentrated livestock feeding facilities from the stream channel, developing off-site water and riparian management.

Granite

The Trout Creek Renaturalization Project will improve channel stability, wetland conditions, fish and wildlife habitat, brown trout spawning conditions, and habitat on Trout Creek. It will also reduce nutrient and sediment inputs to Flint Creek.

This EA is available for review at FWP's Helena Headquarters, the State Library and Environmental Council in Helena. Comments will be accepted until 5 p.m. October 15, 1999. If you have questions, feel free to contact me at (406) 542-5520. All comments should be sent to the undersigned. Thank you for your interest.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric W. Reiland', written in a cursive style.

Eric W. Reiland
Fisheries Biologist

Trout Creek EA Checklist for the Renaturalization Project

PART I. PROPOSED ACTION DESCRIPTION

1. Type of Proposed State Action: Channel Reconstruction, Bank Stabilization, Wetland Restoration and Construction, Fisheries Habitat Improvement, Riparian Management
2. Agency Authority for the Proposed Action: Montana Fish, Wildlife and Parks
3. Name of Project: Trout Creek Renaturalization Project

4. Name, Address and Phone Number of Project Sponsor (if other than the agency):
Eric Reiland, MFWP, 3201 Spurgin Rd., Missoula, MT. 59804
(406-542-5520)

5. If Applicable:

Estimated Construction/Commencement Date: October 15, 1999

Estimated Completion Date: July 20, 2000

Current Status of Project Design (% complete): 100 %

6. Location Affected by Proposed Action (county, township, range and section):
Granite County, T6N R14W Sec 15, 16, 21, 28, 33.

7. Project Size: Estimate the number of acres that would be directly affected that are currently:

(a) Developed:
residential... 0 acres
industrial... 0 acres

(b) Open Space/Woodlands/
Recreation... 0 acres

(c) Wetlands/Riparian
Areas... 3.5 acres

(d) Floodplain... 36.75 acres

(e) Productive:
irrigated cropland... 0 acres
dry cropland... 0 acres
forestry... 0 acres
rangeland... 0 acres
other... 0 acres

8. Map/site plan: enclosed

9. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action.

ENVIRONMENTAL ASSESSMENT:

Trout Creek Renaturalization Project

Project Overview

Montana Fish, Wildlife and Parks is renaturalizing a channelized reach of Trout Creek (Philipsburg, MT). The project will involve the design and renaturalization of a channelized reach of Trout Creek which is located approximately 5.5 miles upstream from the confluence with Flint Creek near the town of Philipsburg (T6N, R14W, Sec. 15, 16, 21, 28, and 33; 7.5 series topographical maps - Philipsburg, Georgetown Lake, and Potato Lakes). The reach was channelized twice approximately 35 and 40 years ago, for conveyance of East Fork Rock Creek irrigation water. Flint Creek irrigation users currently use Trout Creek to convey irrigation water from the East Fork Rock Creek reservoir system to downstream users on Flint Creek. The current channel is downcutting and unstable. The landowners use the area for livestock grazing, fish and wildlife attributes and recreation. The landowners involved in the Trout Creek Renaturalization Project are:

Bill Dennis - upstream
65 McGuire Lane
Philipsburg, MT 59858
406-859-3339

George McClain
44 McClain Lane
Philipsburg, MT 59858
406-859-3359

Delbert Yardley - downstream
Box 562 Metesh Lane
Philipsburg, MT 59858
406-859-3303

Project Goals and Objectives.

The reconstructed channel will restore the riparian and wetland conditions, improving the water table and hydrology of the reach, reducing sediment and nutrient inputs, and improve the channel aesthetics. This project will improve the fisheries and wildlife habitat conditions of Trout Creek, providing additional salmonid recruitment to Flint Creek. It will also prevent any further degrading of the channel through sediment input. The Natural Resources Conservation Service and MFWP are developing a grazing management plan that is acceptable to the landowner. The grazing management plan will provide for vegetation in the newly constructed channel to become established and enable the landowner to utilize the forage production of this reach. Trout Creek is being used as a pilot project for the Philipsburg area residents to demonstrate the advantages of riparian management and stream renaturalization to landowners/ranchers.

The overall objectives of this project are to improve fisheries and wildlife habitat in Trout Creek and Flint Creek through nutrient and sediment reduction, habitat improvement and increased spawning opportunities. Specific project objectives are to complete the following:

1. Renaturalize, stabilize and revegetate the laterally migrating and downcutting sections of the stream channel by relocating the stream in its original channel;
2. Relocate the corral facilities off the stream channel and reduce the nutrient loading to Trout and Flint creeks;
3. Restore the drained and degraded wetland areas;
4. Improve spawning, rearing and overwintering adult and juvenile trout habitat in the channelized and degraded stream channel; and
5. Develop a riparian grazing management plan to promote the regeneration and survival of woody riparian species, while enabling forage utilization.

Project Elements

Several sections of Trout Creek were mechanically channelized at least 40 years ago. The channelized reaches within the proposed project area are approximately 6,336 feet long and an old stream channel still exists in some reaches of the project area (approximate length = 21,840 feet). The shortening of the stream channel has created a down-cutting, unstable reach of Trout Creek. The unstable stream channel is beginning to erode the stream banks, threatening hay meadows, pasture land, corral facilities and a structure. The channelized reaches are approximately 35 feet wide and 0.2-1.5 feet deep, providing little or no fisheries habitat and they are currently degrading other reaches of the stream through sediment input and channel movement.

The proposed project would incorporate relocating the Trout Creek in its original channel or constructing a new channel with habitat improvement and bank stabilization, removing corral facilities off the channel, developing off-site water for the livestock and riparian management. The old stream channel still exists in some reaches but it has filled in with sediment and vegetation. This channel would need to be excavated and have bank stabilization and habitat improvement structures in place prior to accepting Trout Creek flows. After relocating the Trout Creek flows in the old channel, the straightened channel reaches will be either filled or plugged and excavated providing open water wetland habitat and off-site livestock-watering areas. Native vegetation (willows and cottonwoods) and natural material will be used to stabilize the banks providing fisheries and wildlife habitat. The project will also include stabilizing the stream banks between the channelized reaches (approximately 3,960 feet).

Two channelized reaches exist within the proposed Trout Creek project area. The upper channelized section (Dennis Ranch) is approximately 3,680 feet long with the lower section (Yardley Ranch) being 2,660 feet long. The current channel length for the entire project reach is 10,590 feet long. The proposed reconstructed channel will be approximately 21,840 feet long for natural stream sinuosity, increasing the stream length by 11,250 feet. Wetted perimeters within the channelized reaches are approximately 35 feet wide and 0.2-1.5 feet deep.

The unstable, eroding stream banks within the Trout Creek channelized reaches are the primary source of sediment input in Trout Creek (headwaters to confluence). Approximately 87% of the banks within the channelized reaches are eroding and 42% of the banks are unstable within the semi-natural project reaches. Twelve percent of the banks were unstable within a sampled reference reach. It was estimated that, within the project area, the eroding stream banks contribute 564 cubic yards of sediment to Trout Creek annually. The substrate within reference

reach (upstream of project area) contained primarily gravel ($D_{84} = 2.2$ inches) while substrate in the lower channelized reach was organics/silt/sand ($D_{84} = <0.187$ inches). The excessive sediment loading and lack of habitat is impacting the fisheries.

The Trout Creek population estimates indicate fisheries impairment. Although all three landowners recall capturing cutthroat trout in Trout Creek less than 10 years ago, our sampling found only brown trout (Population Estimates). The McClain Ranch sampling site was located within the semi-natural (meandering but degraded) stream reach and the two Dennis Ranch samples were taken in the channelized reach. The lack of successful spawning is apparent by the few numbers of juvenile trout (< 6 inches) sampled in all locations. The population is comprised of primarily adult brown trout. The Dennis Ranch samples demonstrate the inadequacies in adult fish habitat in the channelized reaches.

Water quality is being impacted by several factors, such as eroding stream banks, corral facilities, riparian management, etc. Trout Creek flows through concentrated livestock feeding corrals on the Dennis and McClain ranches. Although no water quality or macro-invertebrate samples have been taken, the corrals most likely impact water quality through sediment and nutrient input. The stream channel below the McClain corrals has an over abundance of aquatic macrophytes. The prolific plant growth may be attributed to nutrient loading, increased water temperatures from the channelized stream reaches or spring water input. The corrals will be relocated, off-site water developed and a riparian management plan implemented to address water quality problems.

Project construction will include stream bank alteration and stabilization, streambed modification, channel reconstruction and wetland reconstruction. The channel renaturalization will be conducted during fall 1999. Heavy earth moving equipment will be used to reconstruct the old stream pattern and to place the stream bank stabilization features. The channel renaturalization will provide a naturally stable channel, using native materials, which will allow for the function of natural fluvial processes for that stream type. Prior attempts to stabilize the stream banks have been made by the landowner, and these structures will be removed and used in the project elsewhere.

The habitat improvement and stabilization structures use native material and are considered a "soft" stabilization technique. These structures include placing log veins and large woody debris, stems and rootwads on the outside corners of stream bends. The native materials will not only reduce the rate of lateral erosion but also provide the scour needed to form pools and other forms of high quality cover for a E4 channel type (Rosgen classification). In addition, mature live willow clumps and sods will be placed on to the banks to provide additional bank stabilization, shade and cover for fish. The project will include livestock management to facilitate stabilization and riparian health.

Cottonwood trees, fir trees and large rock will be used for bank stabilization, habitat improvement and gradient control structures. Trees used for root wad bank stabilization will be a minimum of 24 inches in diameter at the base with a root wad of at least 8 feet in diameters with a minimum of 20 feet of the tree bole attached. Footer logs will be at least 24 inches in diameter and 20 feet long. Deflector logs will be at least 18 inches in diameter at the large end, with the root wad attached and at least 35 feet long. Rocks used in the root wad installation will be 2-3 foot diameter. The entire root wad structures will be backfilled with river gravel and capped with sod and shrub transplants to provide long term stability. Boulders used for rock weir installation will be 3-4 foot in diameter.

Project Benefits

The Trout Creek Renaturalization Project will improve fisheries and wildlife habitat in both Trout Creek and Flint Creek through nutrient and sediment reduction, improved fish and wildlife habitat, restored and newly constructed wetland complexes and channel stabilization. This area of Trout Creek is unstable, over-grazed, channelized, and contains virtually no pool habitat within the channelized reaches, reducing its potential for spawning.

Riparian management plans will assist in reducing overland runoff, which will also reduce the nutrient loading and water quality problems. Due to the instream flow, habitat restoration and riparian protection aspects of the project, it is expected to benefit trout species. Project benefits will include:

1. reduced nutrient and sediment loading from feed lots and eroding banks;
2. reduce the rates of lateral erosion of pastureland reducing sediment input;
3. better water quality (nutrients, sediment and temperatures) which will not further degrade Flint Creek water quality;
4. improved survival and recruitment of trout species in Trout Creek, increasing recruitment to the Flint; and
5. increased opportunity to catch brown trout in Trout Creek and Flint Creek.

Fish populations in the Clark Fork River are dependent upon the Clark Fork tributaries for migration, reproduction and rearing of juvenile fish. Brown and rainbow trout provide the best opportunity for improving fish populations in this portion of the Clark Fork River. Due to the habitat restoration and protection aspect of the project, this project is expected to benefit trout species.

Project Scheduling

The project is expected to require 6 weeks for completion of construction. All project construction related to the stream channel work will be completed under the direct supervision of a fisheries biologist and consulting hydrologist. Fall 1999 is the anticipated time for construction.

Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits:

Agency	Permit	Date
Granite County Conservation District Montana Fish, Wildlife and Parks	SPA 310 Permit	September 10, 1999
Army Corps of Engineers	404 Permit	September 1, 1999
USFWS Consultation	Section 6 - ESA	June 1999

(b) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency

Responsibility

List of Agencies Consulted During Preparation of the EA:

MT Fish, Wildlife and Parks

Natural Resources Conservation Service

US Fish and Wildlife Service

MT Department of Natural Resources and Conservation

MT Department of Environmental Quality

PART II. ENVIRONMENTAL REVIEW - IMPACTS

1. Evaluation of the Impacts of the Proposed Action Including Secondary and Cumulative Impacts on the Physical and Human Environment. Complete the following checklist, adding comments or narrative as necessary.

<u>PHYSICAL ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
1. <u>LAND RESOURCES</u> Will the proposed action result in:						
a. Soil instability or changes in geologic substructure?		XX				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?		XX				
c. Destruction, covering or modification of any unique geologic or physical features?		XX				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			XX			XX
e. Exposure of people or property to earthquakes, landslide, ground failure, or other natural hazard?		XX				
f. Other:		none				

XXXX

<u>PHYSICAL ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
2. <u>AIR RESOURCES</u> Will the proposed action result in:						
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))		XX				
b. Creation of objectionable odors?		XX				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		XX				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		XX				
e. For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regulations? (Also see 2a)		XX				
f. Other:		none				

XXXX

<u>PHYSICAL ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
<u>3. WATER RESOURCES</u>						
Will the proposed action result in:						
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			XX			XX
b. Changes in drainage patterns or the rate and amount of surface runoff?		XX				
c. Alteration of the course or magnitude of flood water or other flows?		XX				
d. Changes in the amount of surface water in any water body or creation of a new water body?		XX				
e. Exposure of people or property to water related hazards such as flooding?		XX				
f. Changes in the quality of groundwater?		XX				
g. Changes in the quantity of groundwater?		XX				
h. Increase in risk of contamination of surface or groundwater?		XX				
i. Effects on any existing water right or reservation?		XX				
j. Effects on other water users as a result of any alteration in surface or ground-water quality?		XX				
k. Effects on other?		none				

XXXX

<u>PHYSICAL ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
4. <u>VEGETATION RESOURCES</u>						
Will the proposed action result in:						
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			XX			XX
b. Alteration of a plant community?			XX			XX
c. Adverse effects on any unique, rare, threatened, or endangered species?		XX				
d. Reduction in acreage or productivity of any agricultural land?		XX				
e. Establishment or spread of noxious weeds?			XX			XX
f. For P-R/D-J, will the project affect wetlands, or prime and unique farmland?		XX				
g. Other:		none				

XXXX

<u>PHYSICAL ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
<u>5. FISH/WILDLIFE RESOURCES</u>						
Will the proposed action result in:						
a. Deterioration of critical fish or wildlife habitat?			XX			XX
b. Changes in the diversity or abundance of game animals or bird species?		XX				
c. Changes in the diversity or abundance of nongame species?		XX				
d. Introduction of new species into an area?		XX				
e. Creation of a barrier to the migration or movement of animals?		XX				
f. Adverse effects on any unique, rare, threatened, or endangered species?		XX				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		XX				
h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)		XX				
i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)		XX				
j. Other:		none				

XXXX

<u>HUMAN ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
<u>6. NOISE/ELECTRICAL EFFECTS</u>						
Will the proposed action result in:						
a. Increases in existing noise levels?		XX				
b. Exposure of people to serve or nuisance noise levels?		XX				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		XX				
d. Interference with radio or television reception and operation?		XX				
e. Other:		none				

XXXX

<u>HUMAN ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
7. <u>LAND USE</u> Will the proposed action result in:						
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		XX				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		XX				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		XX				
d. Adverse effects on or relocation of residences?		XX				
e. Other:		none				

XXXX

<u>HUMAN ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
3. <u>RISK/HEALTH HAZARDS</u> Will the proposed action result in:						
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		XX				
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		XX				
c. Creation of any human health hazard or potential hazard?		XX				
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		XX				
e. Other:		none				

XXXX

<u>HUMAN ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
9. <u>COMMUNITY IMPACTS</u> Will the proposed action result in:						
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		XX				
b. Alteration of the social structure of a community?		XX				
c. Alteration of the level or distribution of employment or community or personal income?		XX				
d. Changes in industrial or commercial activity?		XX				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		XX				
f. Other:		none				

XXXX

HUMAN ENVIRONMENT	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
<p>10. <u>PUBLIC SERVICES, TAXES and UTILITIES</u></p> <p>Will the proposed action result in:</p>						
<p>a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify: _____</p>		XX				
<p>b. Will the proposed action have an effect upon the local or state tax base and revenues?</p>		XX				
<p>c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?</p>		XX				
<p>d. Will the proposed action result in increased used of any energy source?</p>		XX				
<p>e. Other: _____</p>		none				

XXXX

<u>HUMAN ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in:						
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		XX				XX
b. Alteration of the aesthetic character of a community or neighborhood?		XX				
c. Alteration of the quality or quantity of recreational opportunities and settings?		XX				
d. For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c)		XX				
e. Other:		none				

XXXX

<u>HUMAN ENVIRONMENT</u>	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
<u>12. CULTURAL/HISTORICAL RESOURCES</u> Will the proposed action result in:						
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleological importance?		XX				XX
b. Physical change that would affect unique cultural values?		XX				
c. Effects on existing religious or sacred uses of a site or area?		XX				
d. For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a)		XX				
e. Other:		none				

XXXX

ENVIRONMENTAL SUMMARY	UNKNOWN	NO IMPACTS	IMPACTS MINOR	POTENTIALLY SIGNIFICANT	CAN IMPACTS BE MITIGATED	COMMENT INDEX
13. <u>SUMMARY EVALUATION OF SIGNIFICANCE</u>						
Will the proposed action result in:						
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources, which create a significant effect when considered together or in total.)		XX				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		XX				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		XX				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		XX				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		XX				
f. Other:		none				

XXXX

Comment Index Items

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

- 1.d. A temporary increase in stream turbidity will occur during project implementation.
- 3.a. A temporary increase in stream turbidity during project implementation.
- 4.a. Increase in woody riparian species.
- 4.b. Increase in woody riparian species.
- 4.e. Disturbed sites will be immediately seeded with a competitive native grass mixture.
- 5.a-h. This project will is a habitat enhancement project and will benefit "species of special concern"
- 11.a-e. This project will enhance esthetic and recreational values.
- 12.a. No cultural/historical resources found in the project area.

Closing Statements

1. Alternative descriptions and mitigation considerations.

Other means of renaturalizing Trout Creek are not feasible in the near term. At this time, channel reconstruction and stabilization is the most viable option for the following reasons:
 - a. A no action alternative would **not** improve the fish and wildlife habitat, recreational opportunities or channel instability problems.
 - b. Reconstructing the channel in its current location would require constructing an entirely new floodplain and floodprone area, which would not be cost effective.
2. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:
 - a. No action alternative
This alternative would be implemented by not taking any actions on the proposed fish habitat restoration plan. The likely outcome of this alternative would be potential damage to fish habitat, increased bank erosion and loss of pastures, loss of potential fishing opportunity on and off-site, additional siltation of downstream reaches.
3. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

The preferred alternative is a restoration effort. Past land use actions have contributed to bank instability and habitat loss.

4. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No EIS is required for this project. The proposed action represents an enhancement in ecosystem components and the human environment. The positive corrective nature with minimal impacts make an EA the appropriate level of analysis.

5. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?

Only limited public involvement is planned. The landowners, Montana Fish, Wildlife and Parks, USFWS, NRCS and the appropriate Conservation District have approved all actions. This project is consistent with other restoration efforts in the Clark Fork River Basin.

6. Duration of comment period if:
30 days

7. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

Eric Reiland

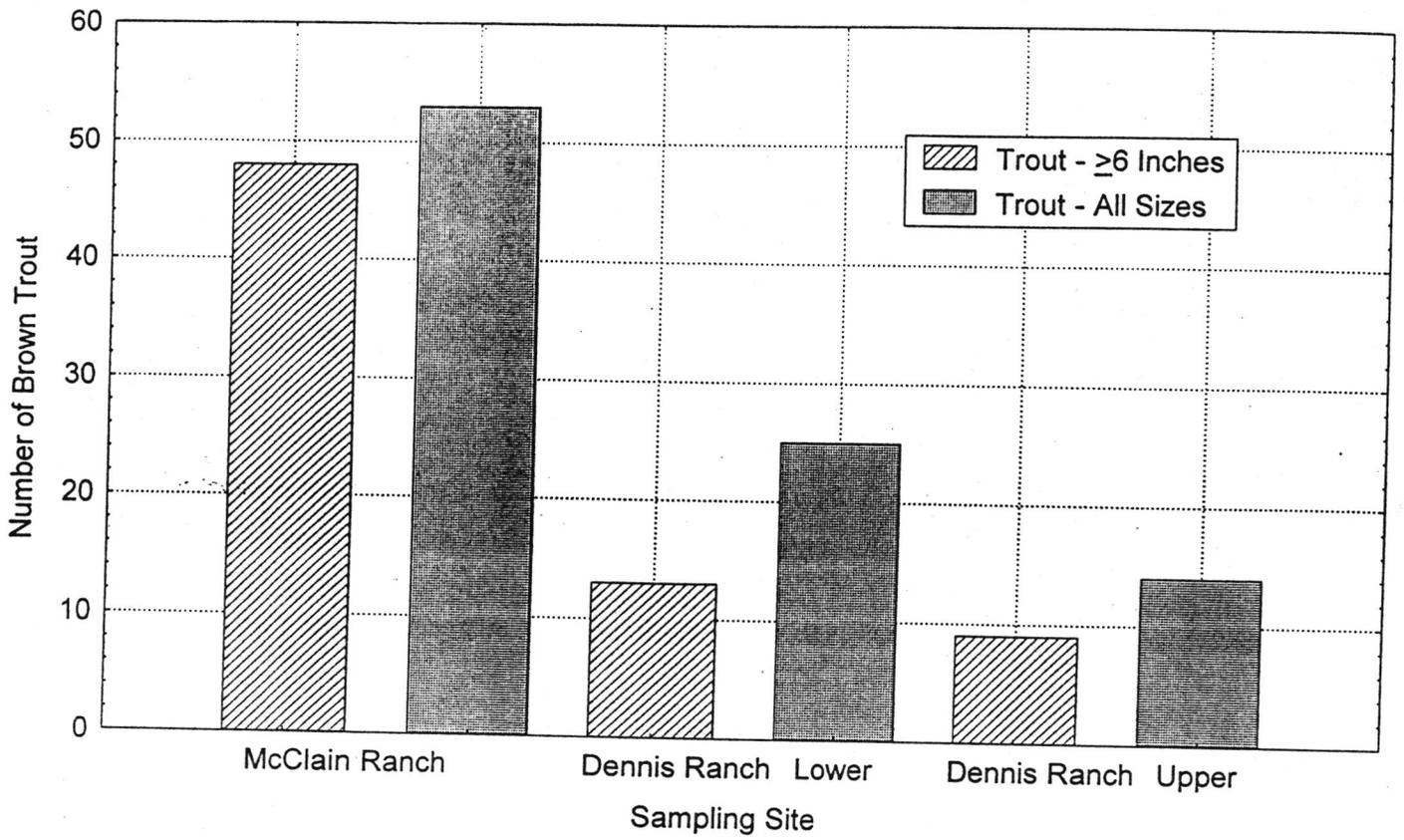
Montana Fish, Wildlife and Parks

3201 Spurgin Rd.

Missoula, MT. 59804

406-542-5520

Trout Creek Brown Trout Estimates
Fall 1996 - Trout/100 Yards



Trout Cr

NRCS NEGATIVE FINDINGS REPORT

This form will be completed for surveys where no cultural properties (sites) were found. Completion of this form assumes that the surveyor has completed the NRCS National Cultural Resources Training and the inventory was conducted using 15 meter (50-foot) transects. (PLEASE TYPE OR USE PEN.)

FIELD OFFICE: Philipsburg

COUNTY: Granite

TWN--RNG--SEC--QUARTER: T 6N R 14W S 21 + 28

SURVEY ACRES: 2.50 Acres

FILE SEARCH RESULTS: Negative

PROJECT DESCRIPTION: Reroute Trout Creek for
2 miles into original channel

DATE OF INVENTORY: 10-23-98

SURVEYOR'S NAME: Glen Green Annette Johnson

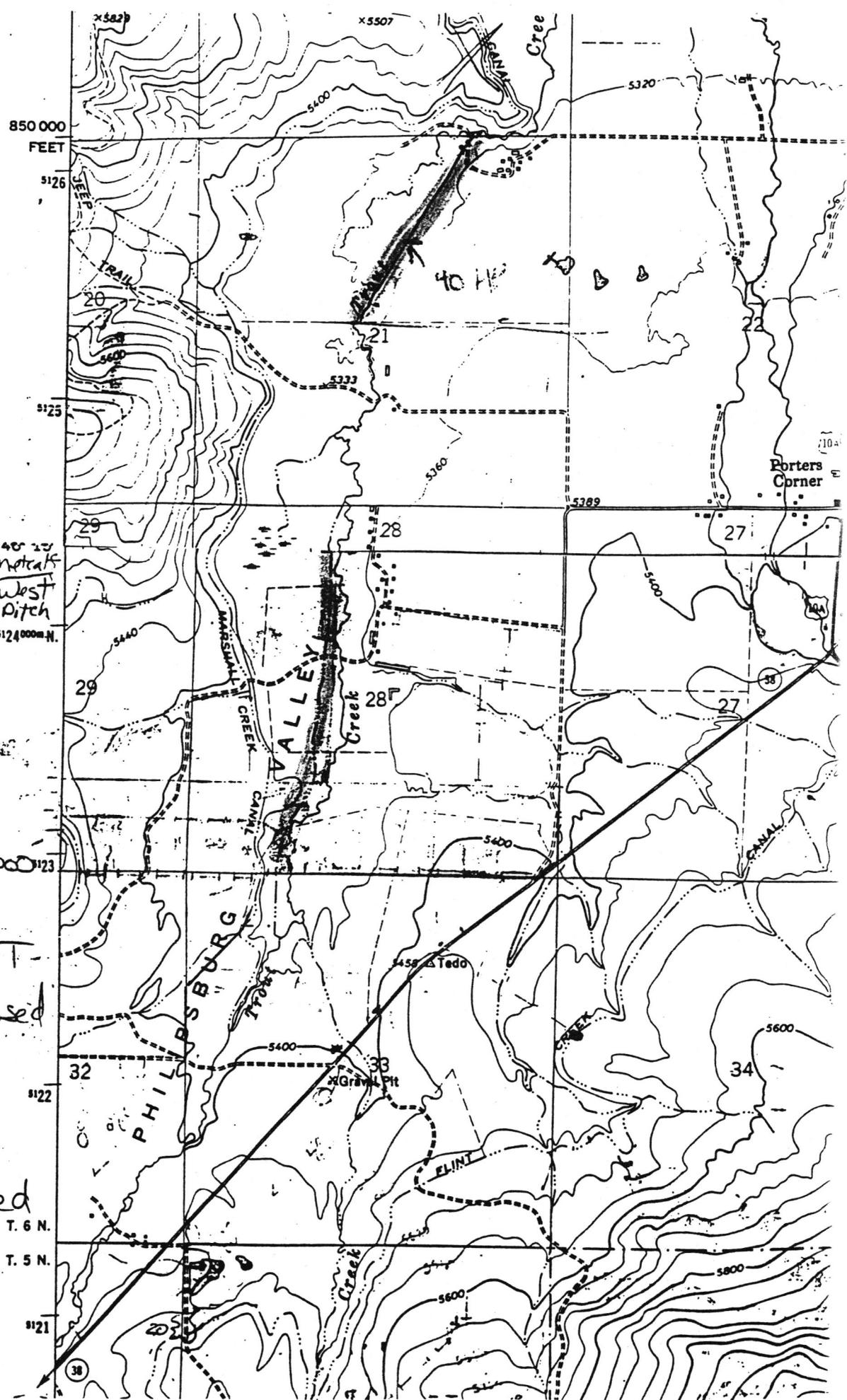
COMMENTS:

Walk thru survey of both
straightened + original channel. No
cultural resources found.

SEP 07 1999

DEPT. OF WILDLIFE & PARKS
REGION 2--MISSOULA

ATTACH COPY OF USGS MAP WITH APE OUTLINED AND AREAS
SURVEYED--IF DIFFERENT FROM APE. SEND COMPLETED FORM TO
CRS IN BOZEMAN WITH COPY IN YOUR FILES.



850 000
FEET

40 to 20
meters
West
Ditch
5124000m N.

Scale 1" = 2000'

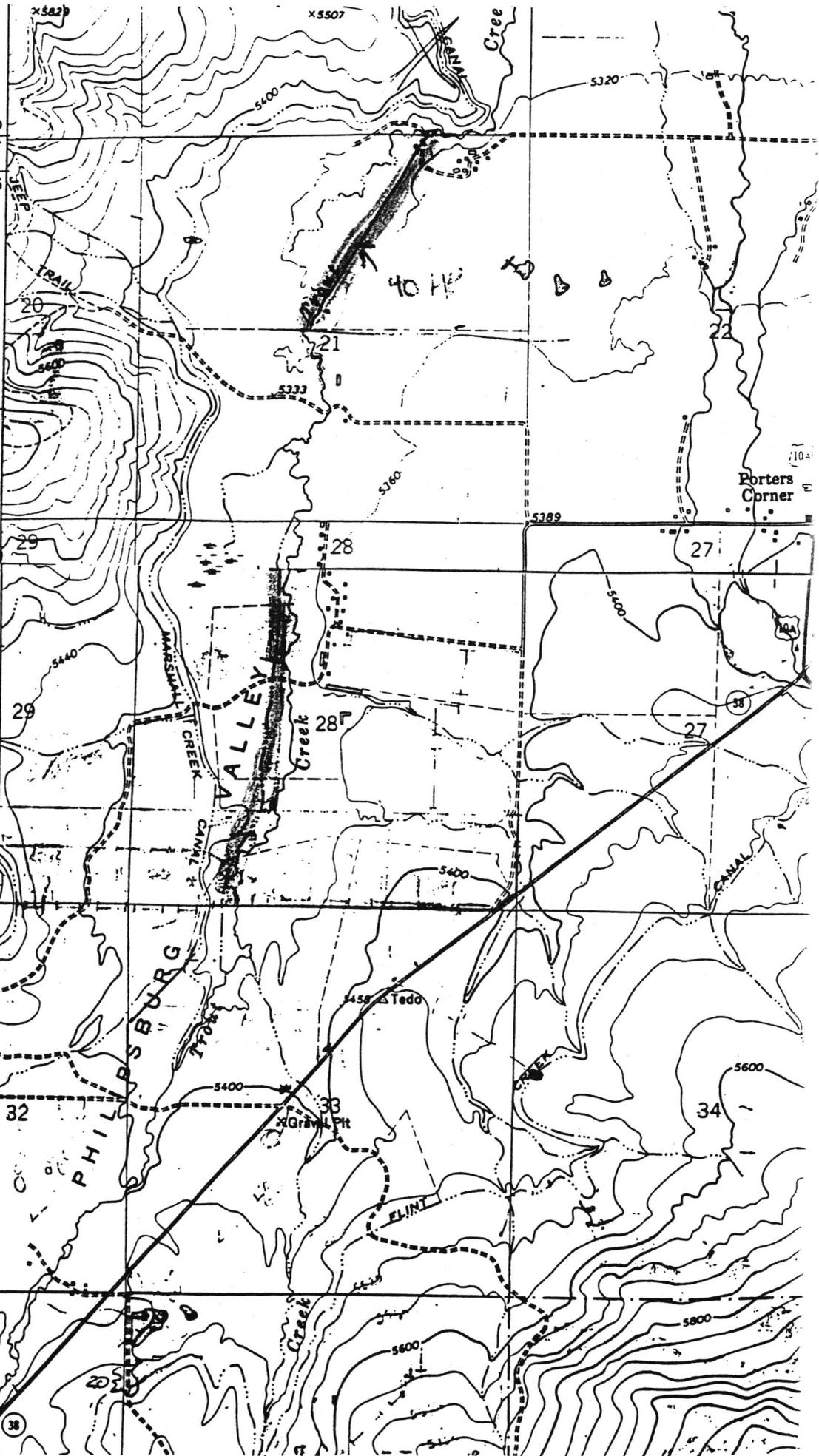
Granite Co. MT
Trout Cr Proposed
w/ R/P Project
T b N R I H W

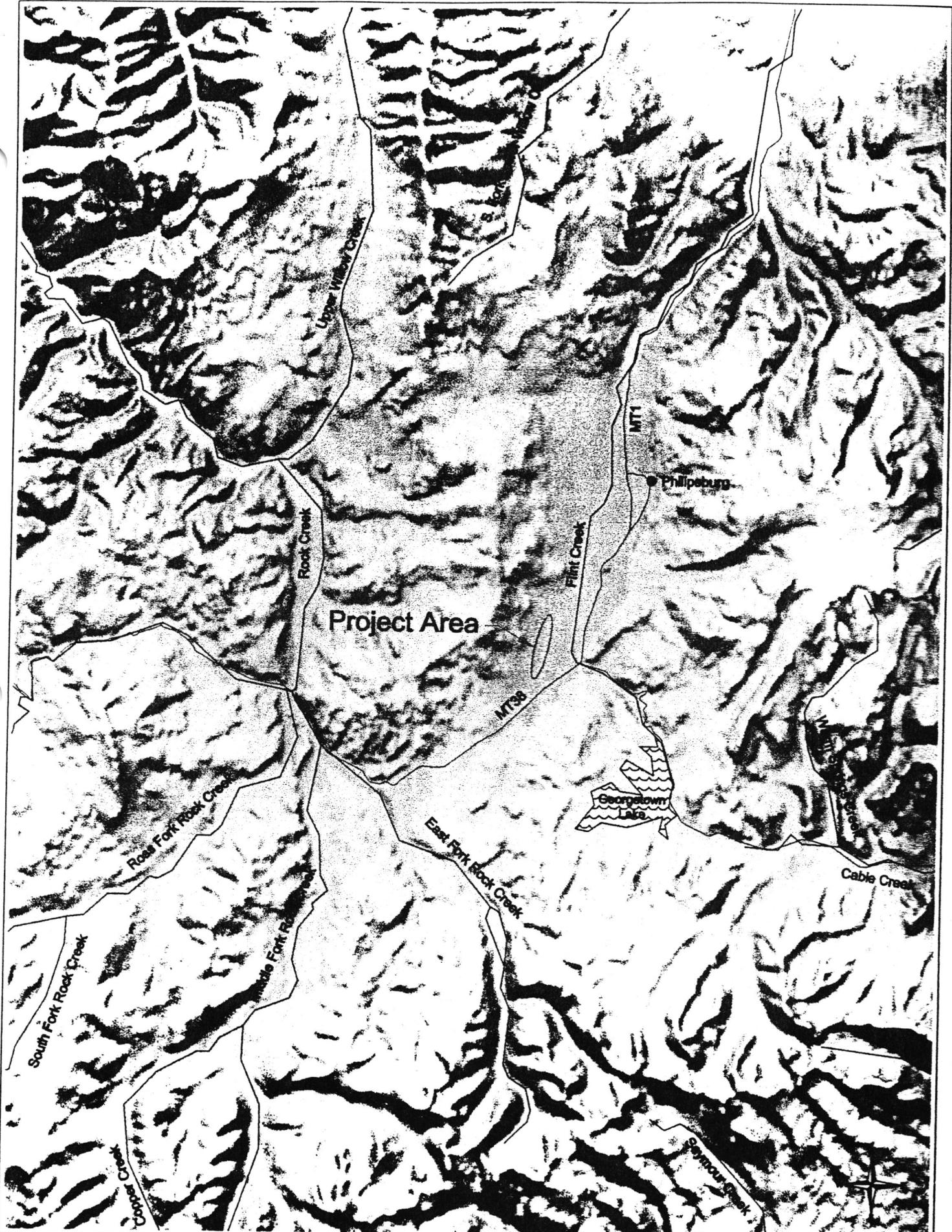
Proposed
Project area -
walk thru
Survey

T. 6 N.

T. 5 N.

5121





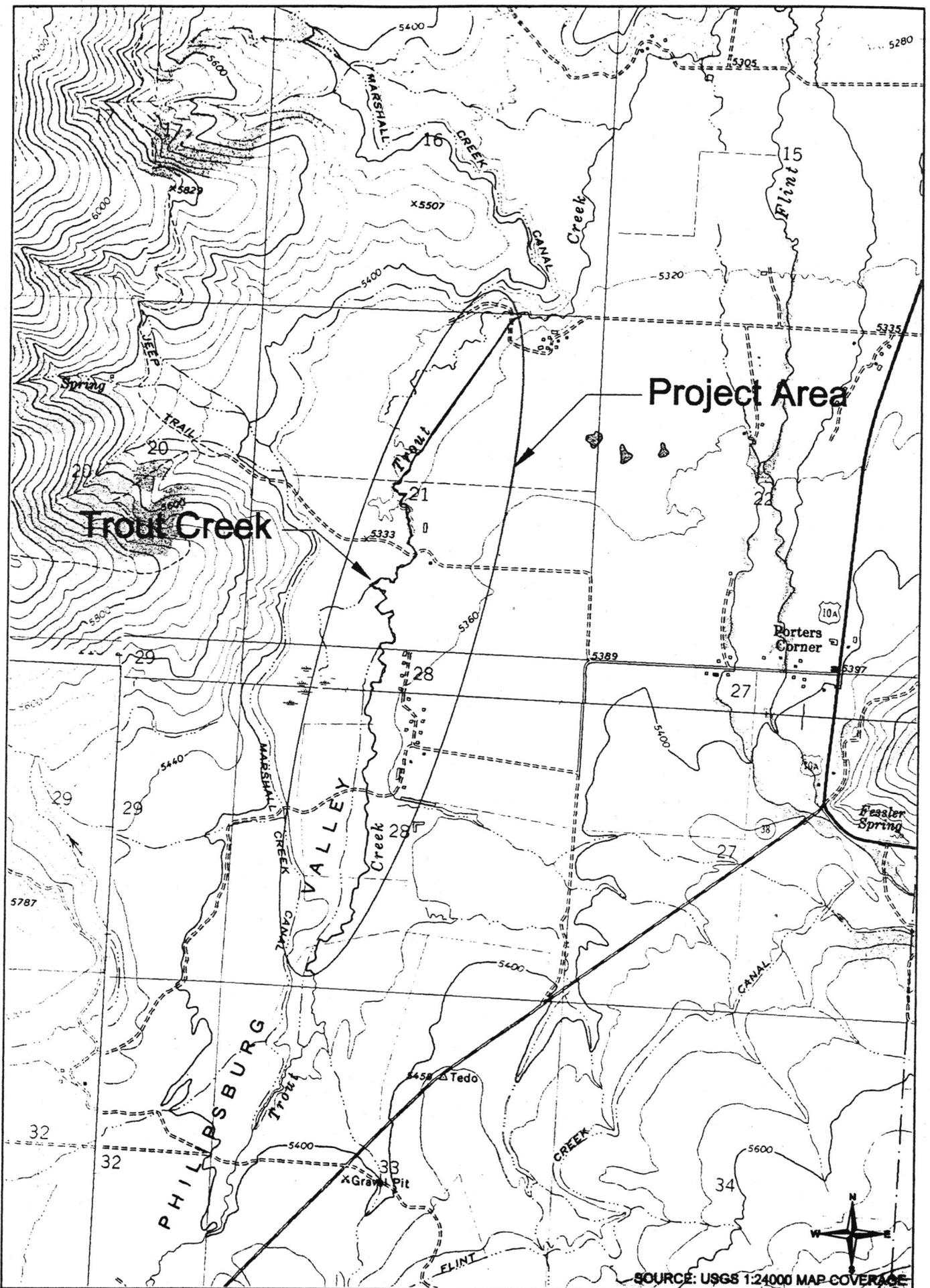

LAND & WATER CONSULTING, INC.
 P.O. BOX 8254
 Missoula, MT 59807

PROJECT NO: H98-200
 PROJECT MANAGER: PC
 DRAWN BY: MP

DATE: Oct 98
 SCALE: 1"=4 miles
 CHECKED:

LOCATION: Granite Co, MT
 FILENAME: Vicinity.dwg
 FIGURE: 1

PROJECT NAME:
Trout Creek Renaturalization
 DRAWING TITLE:
Vicinity Map



SOURCE: USGS 1:24000 MAP COVERAGE

<p>LAND & WATER CONSULTING, INC. P.O. BOX 8284 Missoula, MT 59807</p>	PROJECT NO: H98-200	DATE: Oct 98	LOCATION: Trout Creek	PROJECT NAME:
	PROJECT MANAGER: PC	SCALE: 1"=2000'	FILENAME: topocans	Trout Creek Renaturalization
	DRAWN BY: MP/MB	CHECKED:	FIGURE: 2	DRAWING TITLE:
				Project Area