

DRAFT

MEPA/NEPA/HB495 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. **Type of Proposed State Action** Stream Enhancement – Lolo Creek
2. **Agency Authority for the Proposed Action** Statute Authority (MFWP), along with authority of partners who are landowners at the site: Lolo National Forest and Montana Dept of Transportation

3. **Name of Project** : Lolo Creek Enhancement Project – Phase I

4. **Name, Address and Phone Number of Project Sponsor (if other than the agency)**

Primary Cooperating Agency: Lolo National Forest
Attn: Traci Sylte
Building 24, Fort Missoula
Missoula, MT 59802
(406) 329-3896

5. **If Applicable:**

Estimated Construction/Commencement Date: August 15, 2005
Estimated Completion Date: May 1, 2006
Current Status of Project Design (% complete): 90%

6. **Location Affected by Proposed Action (county, range and township)**

Missoula County, T12N, R23W, Section 25

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

- | | |
|--|---|
| (a) Developed: | (d) Floodplain..... |
| residential <u>0</u> acres | <u><5</u> acres |
| industrial..... <u>0</u> acres | (e) Productive: |
| (b) Open Space/Woodlands/ Recreation <u><5</u> acres | irrigated cropland <u>0</u> acres |
| (c) Wetlands/Riparian Areas..... <u><5</u> acres | dry cropland <u>0</u> acres |
| | forestry..... <u>0</u> acres |
| | rangeland <u>0</u> acres |
| | other <u>0</u> acres |

8. **Map/site plan: attach an original 8 1/2" x 11" or larger section of the most recent USGS 7.5' series topographic map showing the location and boundaries of the area that would be affected by the proposed action. A different map scale may be substituted if more appropriate or if required by agency rule. If available, a site plan should also be attached.**

Map and sketched plans attached

Revised 7-28-05

- ⊗ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- ▶ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
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9. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action.

This project involves enhancement of instream and riparian habitat along Lolo Creek directly adjacent to the US Forest Earl Tenant Campground at milepost 14 on US Highway 12. The work is being undertaken to attempt to mitigate for past cumulative impacts to Lolo Cree including stream straightening, channel relocation, removal of channel complexity and degradation of the riparian area. The proposed action will include planting of woody vegetation (trees and shrubs) to enhance the riparian area, placement of trees and large woody complexes in Lolo Creek and installation of one rock vein at the downstream end of the project. The objectives of the project are three-fold: 1) demonstrate various stream structures that improve aquatic habitat complexity while maintaining the hydraulic function of a natural channel to enhance fisheries, 2) demonstrate how some structures can be placed to reduce near-bank stress while promoting pool habitat, and 3) enhance the long-term site health and productivity by planting additional riparian shrubs and trees.

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

(a) Permits:

| <u>Agency Name</u> | <u>Permit</u> | <u>Date Filed/#</u> |
|----------------------------------|----------------------|----------------------|
| MT Dept of Environmental Quality | 318 Authorization | Issued July 20, 2005 |
| US Army Corps of Engineers | Nation-wide (404) | Pending |
| MT Dept of Transportation | Highway Encroachment | Pending |
| MT Fish, Wildlife & Parks | SPA-124 | June 27, 2005 |

(b) Funding:

| <u>Agency Name</u> | <u>Funding Amount</u> |
|---|-----------------------|
| US Forest Service | ~ \$5,000 |
| Montana Trout | ~ \$5,000 |
| Montana FWP (Through Marshall Creek Mitigation) | up to \$15,000 |

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name Type of Responsibility

MT Dept of Transportation – Landowner adjacent to Hwy 12 (will issue encroachment permit)
 Lolo National Forest – Primary landowner (project partner)

11. List of Agencies Consulted during Preparation of the EA:

US Forest Service
 MT Dept of Transportation

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PART II. ENVIRONMENTAL REVIEW

PHYSICAL ENVIRONMENT

| 1. <u>LAND RESOURCES</u> Will the proposed action result in: | IMPACT* | | | | Can Impact Be Mitigated* | Comment Index |
|---|----------|------|--------|-------------------------|--------------------------|---------------|
| | Unknown* | None | Minor* | Potentially Significant | | |
| ▶a. Soil instability or changes in geologic substructure? | | X | | | | |
| b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility? | | | X | | Yes | 1 |
| ▶c. Destruction, covering or modification of any unique geologic or physical features? | | X | | | | |
| 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? | | | X | | Yes | 2 |
| e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard? | | X | | | | |
| f. Other | | | | | | |

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

- 1 Local areas will be disturbed in the project reach to install wood and enhance stream habitat. Disturbed bank areas will be re-seeded and re-vegetated immediately upon completion of work.
- 2 Project will result in local scour and erosion on stream banks. This is an essential component of the project and will contribute to improved aquatic habitat.

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- ▶ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
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PHYSICAL ENVIRONMENT

| 2. <u>AIR</u> Will the proposed action result in: | IMPACT [☆] | | | | Can Impact Be Mitigated [☆] | Comment Index |
|--|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [☆] | None | Minor [☆] | Potentially Significant | | |
| ▶ a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c)) | | X | | | | |
| b. Creation of objectionable odors? | | X | | | | |
| c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally? | | X | | | | |
| d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants? | | X | | | | |
| ◆e. For P-R/D-J projects, will the project result in any discharge which will conflict with federal or state air quality regs? (Also see 2a) | | X | | | | |
| f. Other | | | | | | |

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

- ☆ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.
- ▶ Include a narrative description addressing the items identified in 12.8.604-1a (ARM)
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PHYSICAL ENVIRONMENT

| 3. <u>WATER</u> | IMPACT* | | | | Can Impact Be Mitigated* | Comment Index |
|---|-------------------------------------|----------|------|--------|--------------------------|---------------|
| | Will the proposed action result in: | Unknown* | None | Minor* | | |
| ▶ a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity? | | | | X | YES | 3 |
| b. Changes in drainage patterns or the rate and amount of surface runoff? | | X | | | | |
| c. Alteration of the course or magnitude of flood water or other flows? | | X | | | | |
| d. Changes in the amount of surface water in any water body or creation of a new water body? | | X | | | | |
| e. Exposure of people or property to water related hazards such as flooding? | | X | | | | |
| f. Changes in the quality of groundwater? | | X | | | | |
| g. Changes in the quantity of groundwater? | | X | | | | |
| h. Increase in risk of contamination of surface or groundwater? | | X | | | | |
| i. Effects on any existing water right or reservation? | | X | | | | |
| j. Effects on other water users as a result of any alteration in surface or groundwater quality? | | | X | | YES | 4 |
| k. Effects on other users as a result of any alteration in surface or groundwater quantity? | | X | | | | |
| ◆◆1.For P-R/D-J, will the project affect a designated floodplain? (Also see 3c) | | X | | | | 5 |
| ◆m. For P-R144/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a) | | | X | | YES | 6 |
| n. Other: | | | | | | |

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

- 3 There will be short-term increases in turbidity associated with the project. This is a normal short-term impact of these types of projects that cannot be avoided. Impacts will be mitigated by implementing the project at the lowest water possible and limiting activities in the stream to what’s necessary to complete the project. A short-term turbidity standards waiver has been obtained from the MT Department of Environmental Quality.
- 4 Short –term increases in turbidity may be observed by downstream water users on Lolo Creek, but should not affect the quality or quantity of irrigation water.
- 5 The project will include enhancement of the Lolo Creek floodplain as most of the project occurs within the 100 yr floodplain

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- boundaries. The project is not within the Missoula County floodplain office jurisdiction.
- 6 See permitting requirements in section 10

PHYSICAL ENVIRONMENT

| 4. <u>VEGETATION</u> Will the proposed action result in: | IMPACT [⚙] | | | | Can Impact Be Mitigated [⚙] | Comment Index |
|--|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [⚙] | None | Minor [⚙] | Potentially Significant | | |
| a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)? | | | | X | N/A | 7 |
| b. Alteration of a plant community? | | | | X | N/A | 7 |
| c. Adverse effects on any unique, rare, threatened, or endangered species? | | X | | | | |
| d. Reduction in acreage or productivity of any agricultural land? | | X | | | | |
| e. Establishment or spread of noxious weeds? | | X | | | | |
| ♦♦f. For P-R/D-J, will the project affect wetlands, or prime and unique farmland? | | X | | | | |
| g. Other: | | | | | | |

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

- 7 A major objective of the project is enhancement of the native riparian plant community through planting of ponderosa pine, black cottonwood, willow and red-osier dogwood.

⚙ Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or can not be evaluated.

► Include a narrative description addressing the items identified in 12.8.604-1a (ARM)

♦ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

♦♦ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

8 **PHYSICAL ENVIRONMENT**

| ▶ 5. <u>FISH/WILDLIFE</u> Will the proposed action result in: | IMPACT [☆] | | | | Can Impact Be Mitigated [☆] | Comment Index |
|---|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [☆] | None | Minor [☆] | Potentially Significant | | |
| a. Deterioration of critical fish or wildlife habitat? | | X | | | | Enhance |
| b. Changes in the diversity or abundance of game animals or bird species? | | X | | | | Enhance |
| c. Changes in the diversity or abundance of nongame species? | | X | | | | Enhance |
| d. Introduction of new species into an area? | | X | | | | |
| e. Creation of a barrier to the migration or movement of animals? | | X | | | | |
| f. Adverse effects on any unique, rare, threatened, or endangered species? | | | X | | Yes | 8 |
| g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)? | | | X | | Yes | 8 |
| ◆◆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) | | X | | | | 8 |
| ◆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) | | X | | | | |
| j. Other: | | | | | | |

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

8 Rare and threatened species in the area include bull trout, bald eagles, westslope cutthroat trout, Canada Lynx and gray wolves. The project is intended to enhance fish species and will have no effect on terrestrial species.

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HUMAN ENVIRONMENT

| 6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in: | IMPACT [⊛] | | | | Can Impact Be Mitigated [⊛] | Comment Index |
|--|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [⊛] | None | Minor [⊛] | Potentially Significant | | |
| a. Increases in existing noise levels? | | | X | | YES | 9 |
| b. Exposure of people to severe or nuisance noise levels? | | | X | | YES | 9 |
| c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property? | | X | | | | |
| d. Interference with radio or television reception and operation? | | X | | | | |
| e. Other: | | | | | | |

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

9 There will be an increase in local noise levels during the project due to excavator and heavy equipment use. There are no residences near the location, but the site is adjacent to a USFS campground. Any intrusive noise levels will be limited to 8 am – 6 pm

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HUMAN ENVIRONMENT

| 7. <u>LAND USE</u> Will the proposed action result in: | IMPACT [☆] | | | | Can Impact Be Mitigated [☆] | Comment Index |
|--|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [☆] | None | Minor [☆] | Potentially Significant | | |
| a. Alteration of or interference with the productivity or profitability of the existing land use of an area? | | X | | | | |
| b. Conflicted with a designated natural area or area of unusual scientific or educational importance? | | X | | | | |
| c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action? | | | X | | YES | 10 |
| d. Adverse effects on or relocation of residences? | | X | | | | |
| e. Other: _____ | | | | | | |

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

10 The USFS Earl tenant campground is adjacent to the site. Some users may experience minor inconveniences with noise during the day and increased traffic in the area, but these impacts will be monitored and minimized to the greatest extent possible.

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HUMAN ENVIRONMENT

| 8. <u>RISK/HEALTH HAZARDS</u> Will the proposed action result in: | IMPACT [☆] | | | | Can Impact Be Mitigated [☆] | Comment Index |
|---|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [☆] | None | Minor [☆] | Potentially Significant | | |
| 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? | | | X | | YES | 11 |
| b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan? | | X | | | | |
| c. Creation of any human health hazard or potential hazard? | | X | | | | |
| ◆d.For P-R/D-J, will any chemical toxicants be used? (Also see 8a) | | X | | | | |
| e. Other: | | | | | | |

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

- 11 Heavy equipment will be used. Any normal risks associated with large equipment and vehicles are understood and all ASHA safety standards. Special care is given in this case as equipment will be working in and around surface waters (Lolo Creek). Equipment is inspected frequently for leakage of any hazardous substances.

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HUMAN ENVIRONMENT

| 9. <u>COMMUNITY IMPACT</u> Will the proposed action result in: | IMPACT [⊛] | | | | Can Impact Be Mitigated [⊛] | Comment Index |
|--|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [⊛] | None | Minor [⊛] | Potentially Significant | | |
| a. Alteration of the location, distribution, density, or growth rate of the human population of an area? | | X | | | | |
| b. Alteration of the social structure of a community? | | X | | | | |
| c. Alteration of the level or distribution of employment or community or personal income? | | X | | | | |
| d. Changes in industrial or commercial activity? | | X | | | | |
| e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods? | | X | | | | |
| f. Other: | | | | | | |

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

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HUMAN ENVIRONMENT

| 10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u> Will the proposed action result in: | IMPACT [☆] | | | | Can Impact Be Mitigated [☆] | Comment Index |
|---|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [☆] | None | Minor [☆] | Potentially Significant | | |
| 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: _____ | | X | | | | |
| b. Will the proposed action have an effect upon the local or state tax base and revenues? | | X | | | | |
| 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? | | X | | | | |
| d. Will the proposed action result in increased used of any energy source? | | X | | | | |
| ▶ e. Define projected revenue sources | | X | | | | |
| ▶ f. Define projected maintenance costs. | | X | | | | |
| g. Other: _____ | | | | | | |

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

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HUMAN ENVIRONMENT

| ▶ 11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in: | IMPACT [⊛] | | | | Can Impact Be Mitigated [⊛] | Comment Index |
|---|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [⊛] | None | Minor [⊛] | Potentially Significant | | |
| a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view? | | X | | | | IMPROVE |
| b. Alteration of the aesthetic character of a community or neighborhood? | | X | | | | IMPROVE |
| ▶c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report) | | X | | | | IMPROVE |
| ◆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) | | X | | | | |
| e. Other: | | | | | | |

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

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HUMAN ENVIRONMENT

| 12. <u>CULTURAL/HISTORICAL RESOURCES</u> Will the proposed action result in: | IMPACT [⚙] | | | | Can Impact Be Mitigated [⚙] | Comment Index |
|---|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [⚙] | None | Minor [⚙] | Potentially Significant | | |
| ▶a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance? | | X | | | | |
| b. Physical change that would affect unique cultural values? | | X | | | | |
| c. Effects on existing religious or sacred uses of a site or area? | | X | | | | |
| ◆◆d. For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a) | | X | | | | 12 |
| e. Other: | | | | | | |

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

12 USFS archaeologist investigated and provided clearance

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HUMAN ENVIRONMENT

| 13. SUMMARY EVALUATION OF SIGNIFICANCE | IMPACT [☆] | | | | Can Impact Be Mitigated [☆] | Comment Index |
|--|----------------------|------|--------------------|-------------------------|--------------------------------------|---------------|
| | Unknown [☆] | None | Minor [☆] | Potentially Significant | | |
| Will the proposed action, considered as a whole: | | | | | | |
| 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.) | | X | | | | |
| b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur? | | X | | | | |
| c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan? | | X | | | | |
| d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed? | | X | | | | 13 |
| e. Generate substantial debate or controversy about the nature of the impacts that would be created? | | X | | | | |
| ◆f. For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e) | | X | | | | |
| ◆◆g. For P-R/D-J, list any federal or state permits required. | | | | | | Listed above |

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

13 If project is successful, future phases will likely be pursued on Lolo Creek

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- ◆ Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.
- ◆◆ Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

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:

List of Alternatives:

- 1) No Action – leave Lolo Creek in its current modified and degraded state.
- 2) Use alternative techniques (structurally engineered) to enhance Lolo Creek
- 3) Proposed Action

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

Mitigation and control measures are provided in permits. The most significant impact is mobilization of sediment in the stream during construction. This will be minimized by reducing activity in the channel to the minimum necessary, implementing the project during the low water period and timing the project when impacts to aquatic organisms are minimized. All disturbed areas will be reclaimed and vegetation restored prior to termination of the project.

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:

An EA is the appropriate level of analysis for this project. This is a non-extractive natural resource enhancement project. Any impacts to humans and the environment are minimal, particularly in comparison to planned benefits to fish, wildlife and surface waters.

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?

This is a stream enhancement pilot project that will be implemented entirely on public land on a short reach of Lolo Creek. Environmental impacts are minimal and are far outweighed by intended benefits. Therefore, limited public involvement has been sought.

6. Duration of comment period if any:

14 days. Public comment will be accepted until August 12, 2005.

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

Ladd Knotek
Fisheries Biologist
3201 Spurgin Rd, Missoula MT 59804
406-542-5506

PART III. NARRATIVE EVALUATION AND COMMENT

The objectives of the project are three-fold: 1) demonstrate various stream structures that improve aquatic habitat complexity while maintaining the hydraulic function of a natural channel, 2) demonstrate how some structures can be placed to reduce near-bank stress while promoting pool habitat, and 3) enhance the long-term site health and productivity by planting additional riparian shrubs and trees.

The project will utilize an excavator to dig up approximately 40 trees from behind the Forest Service storage yard at the Lolo Creek work center and move them to the creek. Approximately 10-15 trees are donated from a local landowner. Once moved to the creek they will be placed in specific configurations appropriate for each structure type. Structures along the left river bank will be placed in configurations that reduce the near bank shear stress while affording habitat complexity. Along the right river bank, debris jam structures are designed to be very complex natural tree structures (designed debris jams) that actually promote localized bed and stream bank scour to create complexity in areas of high bank rooting strengths. Rock will be avoided except where it is absolutely necessary to reduce the risk of structure failure and where otherwise tree materials are not desired, such as immediately adjacent to Highway 12. All structures will be substantially embedded in the stream bank and/or receive adequate protection with footered stone to reduce the risk of downstream scour, settlement, or flanking that is to varying degrees associated with each structure.

The project will take about five to six days to implement. There will be some short term impacts associated with stream turbidity as some structures require digging in the channel. However, both the short and long term gains far exceed any short term effects. The project is designed to occur during the time of year between spawning seasons where impacts are as minimal as possible. Diverting the stream and other mitigations for sediment have been considered, but have been determined to create more sediment or have negligible effect in overall mitigation. In addition, at locations where trees are extracted and carried to the site, there will be some disturbance in the form of excavator tracks and small exposed surfaces. Where trees are knocked over, the small disturbed area will be reshaped to natural contours and reseeded with appropriate seed native mix. Excavator tracks will be noticeable immediately after the project, but within weeks will begin to fade. Any compacted areas will be roughened. I have the full expectation that there will be little to no evidence of excavator tracks by late fall to early spring. Operations will occur nearby, but will completely avoid the Earl Tennant Campground.

The specific project location is T12N R16 E Section 25. The work is scheduled to occur between August 15 and September 1 of 2005. The project is a cooperative effort between the Lolo National Forest, Montana Fish, Wildlife and Parks (FWP), and Montana Trout. Work will be done using funds and in-kind services contributed by the Lolo National Forest, FWP, the OZ Ranch, and Montana Trout. The Forest Service will oversee the design and construction in coordination with the Lolo National

Forest's aquatic and engineering staff to ensure that Forest objectives are met. A participating agreement spells out partner responsibility and applicable contracting requirements per Federal regulation.

Purpose and Need: Resource/Public Benefit: This project is a joint demonstration project of FWP, the Lolo National Forest, and Montana Trout to provide this section of Lolo Creek with some structural diversity in a manner that promotes natural stream function.

Mitigation Measures: The Mitigation measures prescribed in the individual specialist reports (located in the project file) that will be followed during implementation of this project are listed below.

1. Earl Tennant Campground will be avoided.
2. Montana Guide to the Streamside Management Zone Law & Rules will be followed.
3. Forest Best Management Practices will be applied.
4. Disturbed areas will be reshaped to natural contour and reseeded with appropriate native seed mix.
5. In-stream excavation will be minimized to the extent possible.

USFS Findings Required by Other Laws and Regulations: I make the following findings under the National Forest Management Act and implementing regulations:

Vegetative Manipulation. All vegetative manipulation meets the requirements of 36 CFR 219.27(b).

National Historic Preservation Act. There are no known Heritage Resources within the project area and no significant cultural resources are expected to be affected by my decision. Consultation with archeology specialists will occur if additional cultural resources are discovered during project implementation.

Endangered Species Act. The district wildlife biologist, the forest fisheries biologist, and the forest botanist evaluated the proposed action in regard to the Endangered Species Act and found no adverse effects on threatened or endangered species as a result of this project.

Resource conditions that were considered in determining whether extraordinary circumstances related to the proposed action warrant further analysis and documentation in an EA or an EIS include:

Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species.

Floodplains, Wetlands, or Municipal Watersheds:

- Floodplains: This decision includes activities within floodplains. This decision will not result in significant floodplain-related impacts. Field review (monitoring) of similar projects validates acceptable resource effects from similar activities. The appropriate permits have been obtained for the activity within the floodplains.
- Wetlands: This decision will not affect wetlands.
- To further ensure that riparian-related impacts are minimized, Best Management Practices are incorporated.
- Municipal Watersheds: This decision will not affect municipal watersheds.

Congressionally Designated Areas:

- Wilderness: This decision will not affect wilderness character or wilderness study areas.
- National Recreation Areas: This decision will not affect a National Recreation Area.
- Wild and Scenic Rivers: This project will not affect Wild and Scenic Rivers.
- Inventoried Roadless Areas - There are no inventoried roadless areas (RARE II or Forest Plan) in the decision area. This decision will not affect inventoried roadless areas.
- Research Natural Areas - There are no Research Natural Areas in the decision area.

Archaeological sites, or historic properties or areas – This decision complies with Section 106 of the National Historic Preservation Act. Surveys were conducted for Native American religious or cultural sites, archaeological sites, and historic properties or areas that may be affected by this decision.

No other extraordinary circumstances related to the project were identified.

I have determined that according to FSH 1909.15 Chapter 30.3(2) no resource conditions are present that lead to a finding of extraordinary circumstances that might cause the action to have significant effects.

USFS Administrative Review or Appeal Opportunities: Pursuant to 36 CFR 215.12(f) this decision is not subject to a higher level of administrative review or appeal, and implementation of this decision may occur immediately.

Contact Persons:

Montana Fish, Wildlife & Parks: Contact Ladd Knotek, 3201 Spurgin Rd, Missoula, MT 59804 phone (406) 542-5506

Lolo National Forest: Contact Traci Sylte, Building 24-A, Fort Missoula, Missoula, MT 59804; phone (406) 329-3896.

Lolo Creek Enhancement Project - Phase 2

PLAN VIEW (no scale)

Project Objective: Demonstrate various stream structures that provide habitat complexity to an altered section of Lolo Creek.

General Notes

1. EXISTING VEGETATION WILL NOT BE DISTURBED.
2. CHANNEL DIMENSIONS WILL NOT BE ALTERED.
3. ROCK WILL BE MINIMIZED TO THE EXTENT POSSIBLE, EXCEPT FOR PLANNED ROCK STRUCTURES (WEIR AT HOWARD CULVERT & VANE ALONG HIGHWAY).
4. WORK WILL BE PERFORMED August 23-31.
5. ALL TREE COMPONENTS WILL BE USED

MATERIAL LIST

- Debris Complexes - 7
- LOG VANES - 6
- ROCK VANE - 1
- SINGLE TREES - 4

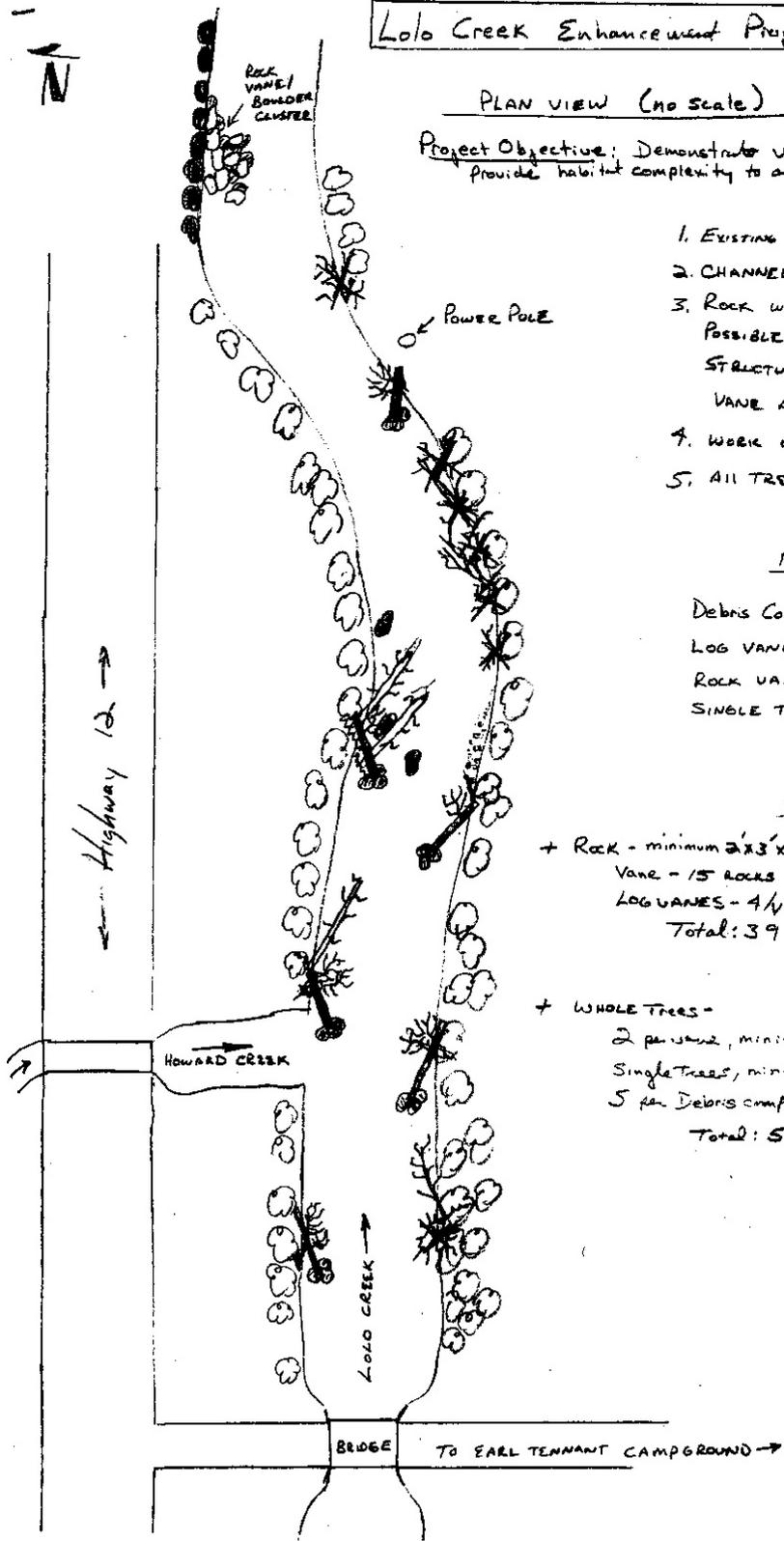
MATERIAL QUANTITY & SIZE

- + ROCK - minimum 2'x3'x3' - 0.7 cy
- Vane - 15 ROCKS (10cy)
- LOG VANES - 4/VANE, 6x4=24 (17cy)
- Total: 39 (27cy)

- + WHOLE TREES -
- 2 per vane, minimum 24" diameter = 8
- Single Trees, minimum 24" diameter = 4
- 5 per Debris composite, range 12-24" = 35
- Total: 51 trees

LEGEND

-  SINGLE TREE
-  EXISTING ROCK
-  PROPOSED ROCK
-  EXISTING WILLOW/DOWNDOG
-  Log Vane/Debris Complex
-  WOODY DEBRIS Vane Complex



Lolo Creek Enhancement Project - Phase 1

PLAN VIEW (no scale)

Project Objective: Demonstrate various stream structures that provide habitat complexity to an altered section of Lolo Creek.

General Notes

1. EXISTING VEGETATION WILL NOT BE DISTURBED,
2. CHANNEL DIMENSIONS WILL NOT BE ALTERED,
3. ROCK WILL BE MINIMIZED TO THE EXTENT POSSIBLE, EXCEPT FOR PLANNED ROCK STRUCTURES (WEIR AT HOWARD CULVERT & VANE ALONG HIGHWAY).
4. WORK WILL BE PERFORMED August 22-31,
5. ALL TREE COMPONENTS WILL BE USED

MATERIAL LIST

- Debris Complexes - 7
- LOG VANES - 6
- ROCK VANE - 1
- SINGLE TREES - 4

MATERIAL QUANTITY & SIZE

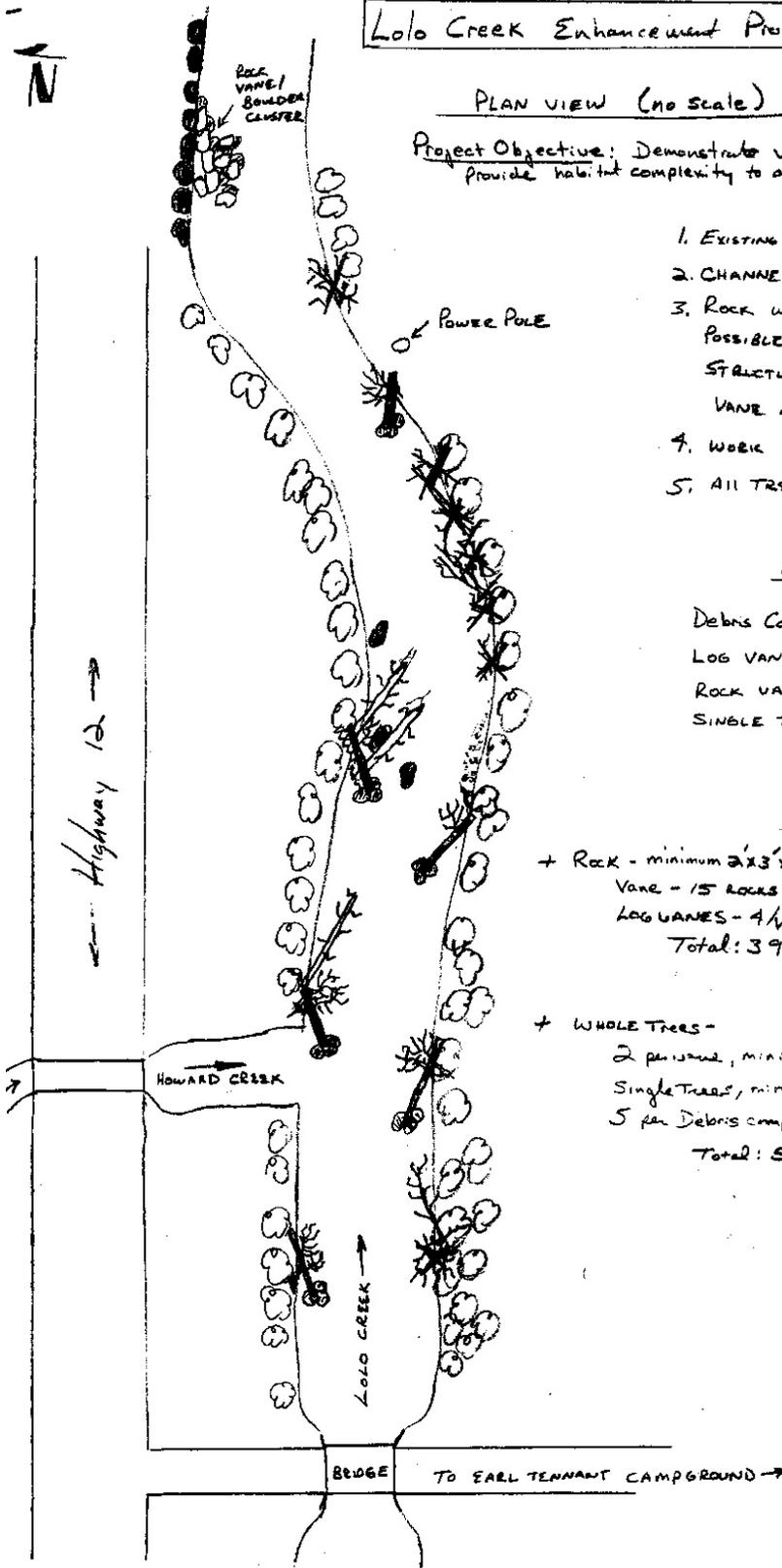
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 Total: 39 (27cy)

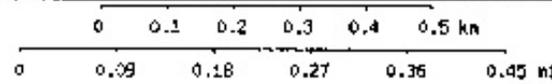
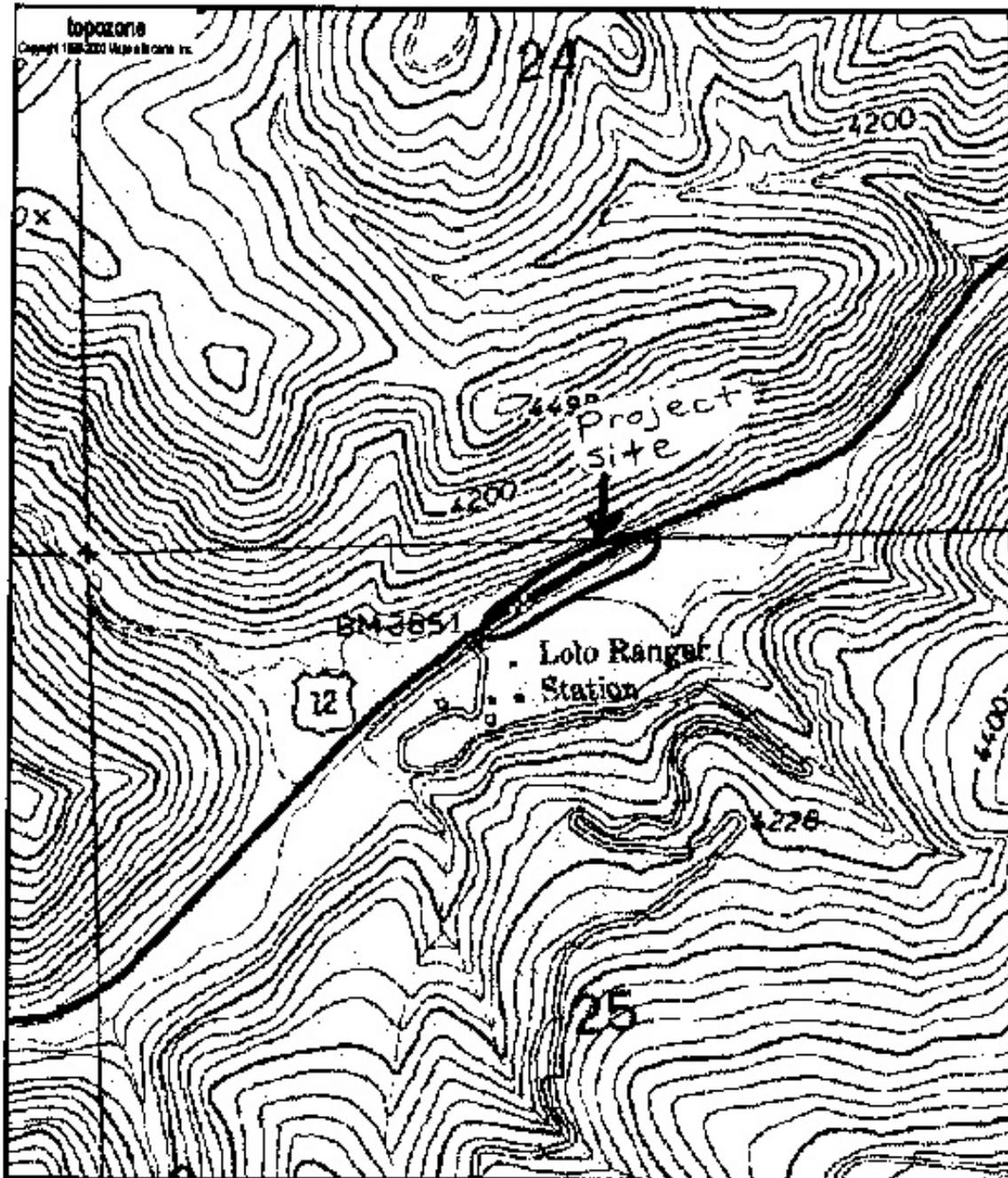
+ WHOLE TREES -

2 per vane, minimum 24" diameter = 8
 Single Trees, minimum 24" diameter = 4
 5 per Debris composite, range 12-24" = 35
 Total: 51 trees

LEGEND

-  SINGLE TREE
-  EXISTING ROCK
-  PROPOSED ROCK
-  EXISTING WILLOW/DOGWOOD
-  Log Vane / Debris Complex
-  WOODY DEBRIS Jam Complex





Map center is 46.7754°N, 114.4343°W (WGS84/NAD83)
Garden Point quadrangle
Projection is UTM Zone 11 NAD83 Datum

