

# FEDERAL EMERGENCY MANAGEMENT AGENCY

## **FINDING OF NO SIGNIFICANT IMPACT** **Tennmile Creek Water Supply Fuel Reduction Project** **Helena, Montana** **November 26, 2008**

### **BACKGROUND**

The City of Helena has submitted an application for funding under the Department of Homeland Security's Federal Emergency Management Agency's (FEMA's) Pre-Disaster Mitigation grant program to reduce the threat of wildfire to the City's Tennmile Creek water system.

Helena's main municipal water source is the Upper Tennmile Creek Watershed. The watershed is predominately forested. The Red Mountain Flume is a critical component of the water conveyance system for the City's potable water supply. The flume starts on the west side of Red Mountain at the confluence of Banner Creek and follows the contour of Red Mountain to the north for a distance of 4.8 miles in an easterly direction to Chessman Reservoir. The flume elevation runs from 6,300 feet to 6,220 feet. The conveyance is comprised of 13,000 feet of open unlined ditch, 11,800 feet of sheet metal flume and 500 feet of pipeline. Trestles that total 4,036 feet in nine sections support approximately 20% of the flume. The trestles are constructed of wood timbers and planks to hold the flume at the proper elevation for water to flow. Approximately 2.1 miles of the flume is located on private land and 2.7 miles is located on the Helena National Forest land.

The combined effects of past fire suppression, heavy fuel loads, an extended drought period, and an active pine beetle infestation have put forests in the Tennmile Creek drainage at risk of a catastrophic wildfire. A catastrophic wildfire would destroy the wooden timber and plank trestles of the flume. Intense heat, fallen burned trees, and other debris would damage the metal flume, diversions, and waste gates. Sediments and debris would impede water flow. It would also denude the watershed and cause erosion, which would destroy or render the entire flume inoperable. If such a wildfire were to occur, it would result in a minimal 23-month loss of Helena's primary water supply. During the 23-month period, municipal water would have to be purchased from the Bureau of Reclamation and pumped to the City's Missouri River Treatment Plant. This treatment plant is 50 years old and currently only used during peak use.

### **DESCRIPTION**

The project area is approximately 108 acres of privately owned land in Lewis and Clark County, Montana, Township 8 North, Range 5 West, Sections 3, 4, 5, 8, and 9. The project area includes only that portion of the flume located on private land, approximately 2.1 miles.

The proposed action would remove dead timber along the trestle sections of the flume to greatly reduce the fuel load. The emphasis would be the removal of dead and beetle-infested Lodgepole pine and small diameter trees that contribute to the wildfire hazard. All deadfall, regardless of tree species, would be removed along with old trestle timbers and planks that have historically been stacked near the flume.

The second stage of the proposed action would remove vegetation for approximately 100 feet above the flume. All downed and standing dead timber 3 inches in diameter or larger would be manually cut and removed to reduce fire intensity and to prevent erosion above the flume. In general, all material would be taken to an area below the flume and safely burned. No burning would occur above the flume except in areas that are predominantly rock. The third phase would remove vegetation 300 feet below the flume.

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Three methods would be utilized for the proposed action: mechanical clearing, hand clearing and burning.

### *Mechanical Clearing*

The mechanical method would consist of using a processor to cut the tree at the base, removing and piling the limbs for burning, and cutting and stacking the stems to be transported by a forwarder. The forwarder is used to remove tree stems to an area for truck transportation. Mechanical clearing would occur between mid-October and mid-December when the ground is frozen and dry. Mechanical equipment would be used only where road or trail access is present. No new permanent or temporary roads would be constructed as part of the proposed action.

### *Hand Clearing*

Hand clearing would be done in areas where road access is limited and/or areas where slopes are over 30 percent grade. Hand crews would walk into the project area from existing roads or trails. Streamside Management Zones would be established adjacent to all streams and associated riparian areas. These are areas that include stream, lake, or other water body and an adjacent area where management strategies are applied to protect water quality and maintain stream temperature. These zones would extend 50 to 100 feet on each side of the streambank.

Hand piles would be built not to exceed 8 feet in diameter on slopes less than 20 percent. The hand piles would be placed on the numerous rock outcroppings and rock scree areas to prevent them from rolling downhill. On some rockslide areas, trees would be cut 12 to 18 inches above the rock surface to avoid erosion. Manual treatment would begin around mid-September and continue through November.

### *Burning*

When cut material is to be burned in place, an area would be selected with little or no vegetation at least 100 feet below the flume. Burning of the piles would take place in the late fall when snow cover is on the ground and in the spring during rainy periods. Additionally, the hand piles would be constructed where the canopy is open to prevent scorching of live trees. As indicated above, most burning would occur below the flume. However, if necessary, burning may occur above the flume, but only in areas that are predominantly rock.

## **MITIGATION AND STIPULATIONS**

The resulting mitigation and stipulations upon which this finding is conditioned are:

1. Vegetation removal activities would occur only on sections of the flume located on the 2.1 miles of privately owned land.
2. Helena is required to coordinate with the Montana Department of Environmental Quality to determine if the proposed action is a major burn as defined in the Major Open Burning Guidelines and submit a written request form as appropriate.
3. Helena is required to follow the Montana Department of Environmental Quality's Burn Plan rules for burning slash piles.
4. Helena is required to obtain a permit for the controlled burning of slash piles from the U.S. Forest Service prior to conducting any burn activities.
5. Helena is required to inform the Lewis and Clark County Sheriff before performing any controlled burn activities.

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6. Mechanical and hand clearing activities would be completed in accordance with Best Management Practices (BMPs) for Forestry in Montana to reduce impacts to soils and water resources or fisheries.
7. Helena would use only existing ATV and 4-wheel drive trails to access the areas adjacent to the flume.
8. Helena would notify residents in the area about the clearing activities with individual letters and a public notice in a local newspaper.
9. Streamside Management Zones would be established adjacent to all streams and associated riparian areas.
10. All Helena Open Lands Management Plan guidelines and recommendations for managing noxious weeds would be followed.
11. Proposed activities would not occur before July 1 to minimize impacts related to nesting and denning activities by wildlife species.
12. If cultural resources are encountered during project activities, work would stop until coordination is completed with FEMA and the Montana SHPO.

**FINDINGS**

Based upon the information contained in the attached Final Environmental Assessment completed in accordance with the National Environmental Policy Act, FEMA's regulations (44 CFR Part 10) for environmental considerations, and Executive Orders (E.O.) addressing Floodplains (E.O. 11988), Wetlands (E.O. 11990), and Environmental Justice (E.O. 12898), it is found that the Proposed Action with the prescribed mitigation measures and stipulations would not have a significant adverse impact on the human environment. As a result of this Finding of No Significant Impact, an Environmental Impact Statement will not be prepared, and the Proposed Action, with the associated mitigation measures and stipulations as described in the attached Environmental Assessment, may proceed.

**APPROVAL**

  
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Jomar Maldonado  
Acting Environmental Officer

12/3/08  
Date