Decision Notice
And
Finding of No Significant Impact

Red Mountain Flume Chessman Reservoir Project
U.S. Forest Service
Helena Ranger District
Helena National Forest
Lewis & Clark & Jefferson Counties, Montana

Introduction

The Red Mountain Flume Chessman Reservoir (Flume Chessman) Project consists of treatments on forested lands along the Red Mountain Flume and around the Chessman Reservoir located in the Upper Tenmile Municipal Watershed about 10 miles southwest of the city of Helena. Treatments include the cutting and removal of dead and dying trees, thinning of live trees, removing large downed fuels, and prescribed burning. This is the primary water source for the city of Helena and its approximate 30,000 residents, as well as Fort Harrison and the Veterans Affairs (VA) hospital. This project is located on the Helena Ranger District of the Helena National Forest (HNF).

The flume is a constructed channel that conveys water from Banner Creek and tributaries to Beaver Creek around Red Mountain to Chessman Reservoir, the main storage reservoir supplying the Tenmile Water Treatment Plant. The flume is about 4.8 miles long, of which roughly 2.1 miles are on private land and the remaining 2.7 miles on the National Forest. The flume is comprised of about 13,000 feet of unlined ditch, 11,800 feet of sheet-metal flume, and 500 feet of pipeline. Wood trestles in nine separate locations support about 20% of the flume.

Extensive tree mortality in the stands around the reservoir and adjacent to the flume have resulted in conditions more conducive to high intensity wildfire and post wildfire effects in these areas. In order to mitigate this risk, the City of Helena collaborated with the private landowners to reduce fuel loading along the flume. The Forest Service proposes similar work to mitigate the risk of wildfire and post-wildfire damage to this critical City infrastructure on public lands.

The Ten Mile Watershed Collaborative Committee (TMWCC) was appointed by Helena City Commission Resolution #19605 on September 8, 2008. The TMWCC developed recommendations to address interrelated issues in the Tenmile Watershed arising from the threat of uncontrolled wildfire, including the City’s water supply infrastructure, the water quality that sustains it, and multiple watershed values. With regard to these recommendations, resource information and data is being gathered to assess the overall landscape, resource conditions to determine if management is needed. At this time a proposed action has not been identified. In the interim, both the TMWCC recommendations and the Forest Service have identified an immediate need to address forest stand conditions adjacent to the flume and around the reservoir described in this Flume Chessman decision document.
Decision and Rationale for My Decision

As the Responsible Official for the Helena National Forest (HNF), I have decided to implement management activities on about 490 acres as analyzed and documented in the Flume Chessman Environmental Assessment (EA) and the accompanying project record. I have also reviewed and considered the following appendices: (Appendix A–Vicinity & Unit Map, Appendix B–Site-Specific Forest Plan Amendment, Appendix C–Design Features, Appendix D–TES Determinations and Appendix E–Objection Process Instructions and Reviews).

The purpose of this project is to reduce the risk of damage to municipal water supply infrastructure presented by the current condition of vegetation and fuels. Recent examples throughout the Rocky Mountains (e.g. Denver and Fort Collins, CO; Alomogordo and Ruidoso, NM; Tombstone and Sierra Vista, AZ) have demonstrated the severe impacts and staggering costs to municipal watersheds due to wildfire. This project seeks to reduce the likelihood of the same fate befalling the City of Helena’s municipal water supply.

The activities included in my decision will provide an efficient and effective approach in accomplishing the purpose and need for this project. Implementation of these prescriptions/treatments will remove trees hazardous to the flume structure itself, reducing the risk of physical damage from falling dead trees and also reducing potential wildfire intensity directly adjacent to the flume. Reducing vegetative fuels adjacent to the flume and Chessman reservoir will reduce the probability of high-severity burn impacts to soils in the event of a fire, which will reduce the probability of severe post-fire erosion and sediment and ash delivery to the flume and reservoir.

This decision includes ground-based mechanical and hand treatment methods followed by prescribed fire on National Forest System lands along the flume and surrounding the reservoir. I am also authorizing the construction of approximately 0.5 miles of temporary road in an upland location to facilitate these treatments. This road will be fully obliterated following completion of project activities.
Included in this decision is the treatment of isolated, narrow parcels of National Forest System lands located along the flume between private parcels, where the City of Helena has implemented similar fuel and hazard reduction treatments. In total, these small slivers of land add up to less than two acres.

A non-significant Forest Plan amendment for hiding cover on summer range and the open road density/hiding cover ratio during the hunting season (Standards 3 and 4(a) Forest Plan p. II/17), is included in this decision. See DN-Appendix B for further amendment details and analysis. This non-significant Forest Plan amendment exempts both Forest Plan big game standards 3 (hiding cover on summer range) and 4(a) (hunting season open road density/hiding cover index) from the activities in this project. There are three elk herd units (EHUs) that overlap with the project area; Black Mountain-Brooklyn Bridge, Quartz Creek, and Jericho Mountain. Currently, both the Black Mountain-Brooklyn Bridge and Quartz Creek EHUs do not meet standard 4(a). Quartz Creek EHU also does not meet standard 3. The third EHU, Jericho Mountain, presently meets both standards and will still meet the standards post-treatment.

Overall, this project may affect elk to some extent by removing cover adjacent to the flume and the reservoir. However, regardless of project implementation, this loss will occur naturally over the next few years due to extensive tree mortality from the insect infestation and natural tree fall. Through the life of this project and with the subsequent recovery of hiding cover over time, elk habitat will remain abundant and well distributed across the Helena National Forest. Further, this exemption will not preclude the HNF’s ability to achieve the wildlife goals and objectives as outlined in the HNF Forest Plan.

Although existing fencing generally excludes livestock from areas near the reservoir and flume, livestock trespass has occurred in recent years where dead trees have fallen and compromised the fence. The removal of dead trees from around the reservoir and flume will greatly reduce the frequency of fence breaches, substantially reducing opportunities for cattle to trespass to these sensitive areas. Additionally, this decision includes the realignment of grazing allotment pasture boundary fences to locations outside of the Chessman Reservoir catchment. This effort will further reduce the likelihood of livestock trespass and related potential water quality impacts in this area.

To ensure the success of this project’s purpose and to manage the multiple resources found in the project area, design features and best management practices (mitigations) are included in this decision. (DN-Appendix C)

I had my staff address the instructions we received from the Forest Services’ Objection reviewing officer. Each resource updated and/or clarified their reports based on information received during the objection process. This included associated documentation regarding cumulative effects where needed. The review also identified additional project mitigation measures such as realignment of pasture boundary fences to exclude potential cattle use from the Chessman Reservoir catchment, emergency closure of spur road 299-H1 to reduce sediment delivery to nearby drainages, and addressing unauthorized user-created routes identified near the flume. I have assessed the reviewing officer’s instructions, and my staff’s responses have been documented, added to the project record and summarized in DN-Appendix E.
In selecting activities associated with my decision and described in this DN, I have considered the comments received during public participation, and the potential direct, indirect, and cumulative effects of implementing this project as disclosed in the EA. In particular, the interests of local residents, governments, and businesses in the City of Helena, Fort Harrison, and others that rely on this source of water were critical in guiding the development of this project and in making my decision.

I believe my decision provides the best balance of management activities to respond to the purpose and need, issues, and public comments, while complying with all applicable laws, regulations and agency policy relevant to this decision. This conclusion is also based on the project record, which includes a thorough review of relevant scientific information, a consideration of responsible opposing views, the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk.

I know that this decision will not completely meet the desires of all public users and groups. However, to best meet the purpose and need for this action that reflects Forest Plan goals and objectives for this area, I have decided to implement activities as described.

Table 1 displays the prescriptions and treatment methods for this decision. Please see Appendix A for a vicinity map displaying the location of the units.

**Table 1: Unit Information**

<table>
<thead>
<tr>
<th>Unit #</th>
<th>Acres</th>
<th>Prescription (Rx)*</th>
<th>Treatment Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 5, 7 and 9</td>
<td>59</td>
<td>Fuel Break Treatment, Handpile or Jackpot Burn</td>
<td>Hand Treatment</td>
</tr>
<tr>
<td>4, 6 and 8</td>
<td>99</td>
<td>Fuel Break Treatment, Handpile or Jackpot Burn</td>
<td>Ground Based Mechanical</td>
</tr>
<tr>
<td>10, 11, 13, 14, and 15</td>
<td>317</td>
<td>Clearcut with Leave Trees, Broadcast Burn</td>
<td>Ground Based Mechanical</td>
</tr>
<tr>
<td>12</td>
<td>15</td>
<td>Improvement Cut, Underburn</td>
<td>Ground Based Mechanical</td>
</tr>
<tr>
<td>Total Acres</td>
<td>490</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Definitions—Environmental Assessment pp. 7-8

**Public Involvement and Collaboration**

**Collaboration**
Several community groups organized meetings that involved a diversity of interests, and which were attended by Forest Service personnel. Notably, the Ten Mile Watershed Collaborative Group and the City of Helena have facilitated meetings to discuss opportunities for watershed improvement and fuels mitigation in the Tenmile watershed.

**Scoping**
A public involvement strategy was developed to ensure that potentially interested members of the public and other government agencies received timely information about the upcoming analysis. Complete details of the public involvement process for scoping can be reviewed in the project record. Several opportunities to participate in the development of this project were provided and are summarized as follows:
• Public Meetings: The HNF held several open houses and information meetings presenting the proposed project to interested public, government agencies, and local organizations.
• A scoping letter describing the project was mailed to interested members of the public, area landowners, and other agencies and organizations. A legal notice appeared in the Helena Independent Record on June 24, 2013.
• The project has been listed on the Helena National Forest Schedule of Proposed Actions (SOPA) since March 15, 2013.
• The HNF hosted several field trips to the project area with different government agencies and various local organizations.
• Articles and news releases have been published in the local newspaper describing the proposed project and scoping comment opportunities.
• Local news stations and the websites for both the Helena National Forest and City of Helena have provided information regarding the proposal and opportunities to be involved.

Comments generated from the scoping process and public open houses were reviewed to identify and evaluate public concerns with the project.

Notification of Opportunity to Comment
Following consideration of comments received during the scoping period, a Preliminary Environmental Document was prepared to provide the public an analysis of the potential foreseeable effects of the Red Mountain Flume Chessman Reservoir Project.

A legal notice appeared in the Helena Independent Record newspaper on June 24, 2013 informing the public of the availability of the Preliminary Environmental Document and ways to acquire a copy. A thirty-day comment period began following the publication of the legal notice. Five comment letters or emails were received during the comment period.

In response to those letters and emails, HNF personnel rigorously explored and objectively evaluated all reasonable alternatives, and discussed the reasons for eliminating any alternative that was not developed in detail (40 CFR 1502.14). The following issues or alternatives were identified but after consideration were eliminated from further analysis.

• Include treating other components of the City of Helena’s water delivery infrastructure.
• Construction of the flume with alternate materials.
• Meeting project goals without logging.
• Implementation delay between the east and west side of Chessman Reservoir to allow shrubs to grow into effective cover for wildlife.
• Create a fuel break set back from the reservoir so cover can be retained near the reservoir.

A detailed consideration of these potential alternatives and the rationale for their dismissal can be reviewed in the EA in the section “Alternatives Considered but Dismissed”.

Objection Process
On August 20, 2013, I published a legal notice in the Helena Independent Record. Simultaneously, the draft Decision Notice, draft “Finding of No Significant Impact and Environmental Assessment” (modified from the above Preliminary Environmental Document) along with other key resource documents were posted on the Helena National Forest website for public access and review.
The 36 CFR 218 regulations provide for a predecisional administrative review process (known as the Objection Process). Two objections were filed with the Objection Reviewing Officer regarding this project. As described in 36 CFR 218.8, the objectors were to provide sufficient narrative description of the specific issues related to the project, and suggest remedies that would resolve the objection.

A regional interdisciplinary panel was convened during the week of October 28, 2013 to evaluate the received objections. The panel thoroughly reviewed the objections and all pertinent information and available supporting documentation in the project record provided by the Helena National Forest. The review team made recommendations and suggestions regarding their findings to the objection reviewing officer.

On November 6, 2013, the Helena District Ranger, representatives of the interdisciplinary team, the Deputy Regional Forester (Objection Reviewing Officer), Regional Appeals/Objections Coordinator, and I (Helena Forest Supervisor and Responsible Official) met with the two Objectors (Native Ecosystems Council & Montana Ecosystems Defense Council), members of the Tenmile Watershed Collaborative Committee, and the City of Helena. The purpose of this meeting was to seek resolution to some or all of the objection issues raised in the objections submitted on this project. In that meeting, no remedies for specific objection issues were offered; therefore, no resolutions to their objections were reached. Broad, generic remedies were suggested including 1) Select the no-action alternative because the objectors believe that the larger watershed vegetative condition doesn’t need management and 2) Conduct an environmental impact statement process developing alternatives focused on wildlife and recreation needs without the use of clearcuts. These general remedies do not precisely deal with the objectives of this project and are outside the scope of the Flume Chessman purpose and immediate need to lower the probable consequences of an intense wildfire to the flume and reservoir or the protection of the flume from falling trees.

Based on the interdisciplinary panel recommendations, discussions during the objection meeting and a thorough review by the objection reviewing officer, instructions were given to the Forest to 1) review the research by Poffett et al (2013) in light of the project; 2) complete a programmatic consultation with United States Fish Wildlife Service (USFWS) on grizzly bear; 3) ensure the list of references and literature attached to the agency objection response letters are included in the project record; 4) review the Open Letter to Members of Congress from 250 Scientists Concerned about Post-fire Logging in light of the project’s purpose and need; 5) add to the project record any further communication with the Montana Department of Environmental Quality (DEQ) concerning this project; and 6) add the Forest Plan Monitoring Report to the project record regarding mandated water-quality monitoring found in the annual Forest Plan Monitoring Reports.

The objection reviewing officer’s agency responses were mailed to both objectors on December 13, 2013. All instructions were addressed by my staff concluding the requirement under 36 CFR Part 218.12. Therefore, this decision document constitutes the final administrative determination for the Red Mountain Flume Chessman Reservoir Project.
FINDINGS BY OTHER LAWS AND REGULATIONS

The National Forest Management Act (NFMA)
Consistency with Forest Plan Standards, Goals, and Objectives
The Helena National Forest Land and Resource Management Plan of 1986 (Forest Plan) establishes management direction for the Helena National Forest. This management direction is achieved through the establishment of Forest-wide goals and objectives, standards, and guidelines. Additional goals and accompanying standards and guidelines have been established for specific Management Areas across the Forest. Project implementation consistent with this direction is the process in which desired conditions described by the Forest Plan are achieved. NFMA requires that all project-level resource plans, such as this DN, are to be consistent with the Forest Plan (16 USC 1604(i)). The EA displays the Forest Plan and Management Area goals and objectives and the standards and guidelines applicable to the Red Mountain Flume Chessman Reservoir project area (EA pp. 1-3). The alternative development process is detailed in EA pages 6-19 and in the project record. After reviewing the EA and supporting documentation, I find that my decision is consistent with Forest Plan standards, goals, and objectives, as amended.

Non-significant amendments to the Forest Plan
The Helena Forest Plan states on page II/14, “If it is determined during project design that the best way to meet the management area goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to the standard for that project; such exceptions and the rationale therefore must be described in the project’s documentation.” With this decision, I am approving a project-specific amendment to the Forest Plan related to wildlife Forest-Wide Big Game Standard 3 and 4a.

The critical need for the long-term function of the water system infrastructure to continue supplying water for the city of Helena and surrounding areas is reason enough in justifying this amendment. The results of the analysis conclude that impacts from this project are insignificant. Elk population viability will remain healthy and elk will continue to be well distributed throughout the Helena National Forest.

This non-significant amendment is consistent with the National Forest Management Act which authorizes me to allow certain activities to occur while not meeting Forest Plan standards 3 and 4a. Appendix B of this document discusses and outlines the evaluations and rationale for the exemption of Forest plan standard of 3 and 4a. Reducing the risk of damage and perpetuating the functionality of the flume and reservoir helps accomplish Forest-wide goal #10 “Maintain high quality water to protect municipal water supplies and to meet or exceed state and Federal water quality standards.”

NFMA (16 U.S.C. 1604) and CFR 219.27
Harvest and fuels treatments, including regeneration harvests, will occur with this project. These actions are consistent with NFMA as follows:

- Reforestation within 5 years of regeneration harvesting is assured with this project. All sites proposed for regeneration treatment occur on productive habitat types that are biologically suitable for timber production. The technology exists for reforestation. Monitoring of
adjacent stands recently harvested in the area show a high probability of adequate desirable natural regeneration. In the event of a failure, seed and capability exists to plant these sites successfully. Of the over 15,000 acres of regeneration harvesting recorded in FACTS on the HNF from 1976 to 2009, over 93% are currently certified as re-stocked.

- The potential effects on residual trees and adjacent stands have been considered.
- This project will employ harvest on both suitable and unsuitable management areas. In this project area, the management areas considered unsuitable for timber production are classified as such based on other resource objectives in the Forest Plan, not because the sites have limited growing capability. In these areas harvesting is used to achieve other resource objectives, primarily related to protecting the infrastructure for a municipal water supply. The harvesting may be primarily considered salvage, as most of the trees that will be removed are dead lodgepole pine.
- Where regeneration harvest utilizing clearcutting has been determined to be the optimum method due to the existing condition and forest type, clearcutting will be applied. The stands to be harvested with regeneration systems are dominated by dead lodgepole pine recently killed by MPB. There are not enough live trees remaining to offer silvicultural system options with regard to residual trees. Further, lodgepole pine ecology dictates that even-aged management best mimics the natural stand replacing regimes of this species.
- Detailed site-specific silvicultural prescriptions will be prepared prior to implementation to document the appropriate vegetative manipulation activities and to prescribe reforestation stocking levels.
- The proposed regeneration harvesting has been considered relative to maximum size limits for areas to be cut per FSM 2400 and 2470.3, as discussed below. However, “such limits shall not apply to the size of areas harvested as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm...” (16 U.S.C. 1604 (g)(3)(F). The openings that will be created with this project occur in stands that have sustained catastrophic insect attacks and therefore the opening size limits do not apply.

Several openings over 40 acres will be created by regeneration harvest. Policy requires that the size of harvest openings created by even-aged silvicultural systems normally be 40 acres or less, and the creation of larger openings requires 60-day public review and Regional Forester approval. However, several exceptions are specified. Where natural catastrophic events such as fire, windstorms, or insect attacks have occurred, 40 acres may be exceeded without 60-day public review and Regional Forester approval, provided the public is notified and the environmental analysis supports the decision. The openings that will be created with this project occur in stands that have sustained catastrophic insect attacks, and therefore Regional Forester approval is not required. The public was notified of this action in the Preliminary Environmental Document as well as the Environmental Assessment document. The harvest units, and adjacent units, that create openings over 40 acres are shown next.

**Table 2: Openings over 40 acres**

<table>
<thead>
<tr>
<th>Unit or Group of Units</th>
<th>Acres</th>
<th>Prescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 7 + 8 + 9</td>
<td>88 acres</td>
<td>Fuel Break Treatment*</td>
</tr>
<tr>
<td>Unit 10</td>
<td>52 acres</td>
<td>Clearcut with Leave Trees</td>
</tr>
<tr>
<td>Unit 14</td>
<td>147 acres</td>
<td>Clearcut with Leave Trees</td>
</tr>
<tr>
<td>Unit 15</td>
<td>57 acres</td>
<td>Clearcut with Leave Trees</td>
</tr>
</tbody>
</table>

*The Fuel Break Treatment will contain variable retention of trees by implementing a mosaic of clearcut and tree thinning depending on the availability of green trees, but in general be dominated by a regeneration harvest condition.*

As Forest specialist analyzed for Forest Plan consistency in more detail during the development of the Preliminary Environmental Document (June 2013) and the Environmental Assessment (August 2013), it was understood that Unit 14 includes about 147 acres of clearcut with leave trees as displayed in Table 5 above. As per the Elk-Logging Study, openings up to 100 acres may be acceptable where the adjacent forest edge supplies adequate security. In central Montana, large natural openings are a normal component of both summer and winter ranges.

As per the above Elk-Logging Study and the clearcut concerns brought to the agency’s attention during the 30-Day Comment Period and Objection Process, Unit 14 will be modified during layout of this unit by partitioning it into 2 openings separated by a >200 ft hiding cover buffer. This adjustment will be made to meet the intent of the recommendations outlined in the logging study and to address the public clearcut concerns brought to the agency’s attention.

**The National Environmental Policy Act (NEPA)**

National Environmental Policy Act provisions have been followed as required by 40 CFR 1500. The Red Mountain Flume Chessman Reservoir Project Decision Notice complies with the intent and requirements of NEPA. As described in Section 102 under Title 1 of the NEPA, policies, regulations, and public laws of the United States were interpreted and administered in accordance with the policies set forth in this Act and the Forest utilized a systematic, interdisciplinary approach as directed and guided by 40 CFR 1500, 36 CFR 220, and FSM 1900.

**Clean Water Act and Montana State Water Quality Standards**

Upon review of the EA, discussion with the Montana Department of Environmental Quality (DEQ) documented in the project record, and other supporting documentation in the project record e.g. Hydrology Report & Soils Resource Report, I find that activities associated with my decision will comply with State water quality standards. My decision includes project Design Criteria and measures to protect the water resource (Appendix C).

**Clean Air Act**

Air quality is managed at three levels: federal, state, and local (health departments) laws and regulations designed to assure compliance with the Clean Air Act (42 U.S.C. 7401-7671q). The Environmental Protection Agency (EPA) has the primary role of ensuring compliance with the Clean Air Act and work through states to ensure this occurs. The EPA issues national air quality regulations, approves and oversees state implementation plans (SIPS), and conducts major enforcement actions. In Montana (MT), the state agency that has federal delegation of authority for meeting the Clean Air Act requirements is the MT Department of Environmental Quality (DEQ) Air Quality Program.
In 1978, federal, state, and local government agencies and the wood product industry formed the Montana State Airshed Group, whose purpose is to manage and limit the impacts of smoke generated from prescribed burning. A list of planned burns is provided to the Smoke Management Unit in Missoula, MT and they issue decisions that can restrict burning to when the current atmospheric conditions are conducive to good smoke dispersion.

Implementation of the Red Mountain Flume Chessman Reservoir Project will be compliant with the Forest Plan because all prescribed fire operations will comply with Federal and State standards and the Montana Cooperative Smoke Management Plan.

After reviewing the EA and project record, I find that the activities to be implemented will be coordinated to meet the requirements of the Clean Air Act at the federal, state, and local levels.

**Endangered Species Act**

Under provisions of this Act, Federal agencies are directed to seek and conserve endangered and threatened species and to ensure that actions are not likely to jeopardize the continued existence of any of these species. In the spirit of that law, a project-level biological assessment was submitted to the United States Fish and Wildlife Service (USFWS) on March 13, 2014 for concurrence with our determination that the activities from the Red Mountain Flume Chessman Reservoir Project ‘may affect but will not adversely affect’ grizzly bears, lynx or their habitat; nor are these activities ‘likely to jeopardize the continued existence’ of the proposed wolverine. The Forest received concurrence with our determination from the USFWS dated April 7, 2014.

The project area occurs outside the range of bull trout on the Helena National Forest, a species listed as threatened under the Endangered Species Act. There are no effects on bull trout or its critical habitat.

There are no known or suspected populations of Region 1 listed threatened and endangered plant species on the Helena National Forest.

I find in my review of the anticipated results and conclusions outlined in the EA, specialist reports, and FONSI that this project fully meets the intent as directed under provisions of the Endangered Species Act.

**Migratory Bird Treaty Act**

In December 2008, the Forest Service and the USFWS signed a “Memorandum of Understanding” to promote the conservation of migratory birds (USDA and USDI 2008). Section D(3) of the Memorandum obliges the Forest Service, within its NEPA process, to “evaluate the effects of agency action on migratory birds, focusing first on species of management concern along with their priority habitats and key risk factors”.

In the short-term (upon implementation of this project), composition of the bird community in treatment units will be different from that of surrounding dead-tree dominated forest because of the contrast in ground vegetation and habitat structure. Untreated areas will support primarily snag-
using birds, some cone seed-eaters, and species needing elevated perches; treated units will support more ground feeding and nesting birds. Some generalist species will be found in both areas.

In the near future (about 10 years), as trees in surrounding stands fall, bird associations in those habitats will become more like those in the open treatment units. There will be some differences due to the low-level cover offered by woody debris in untreated areas and the more robust ground vegetation in treated units. In the long-term, once mature forest are re-established (roughly 40-60 years), birds preferring somewhat more open stands will be drawn to the treated areas; those preferring denser interior forest will inhabit untreated areas. The end result is the project will create new habitat opportunities for some species of migratory birds while reducing preferred habitat for others. It will minimally impact local bird species diversity or density but it will not create population viability problems for any species.

I find that due primarily to the size of this project that the impacts will be minimal on migratory birds in that there will be ample habitat in the surrounding areas, and due to design features around wet areas.

The project is expected to increase local habitat diversity (both the variety of habitat patches and plant species diversity) and, thus, is likely to increase both the local diversity and density of migratory bird species. It will not measurably depress the population of any bird species in the project area.

**National Historic Preservation Act, Archeological Resource Protection Act, Executive Order 11593**

Proposed activities that have the potential for ground disturbance require field inventory for cultural resources to comply with NHPA Section 106, NEPA and Forest Plan Standards. The Forest heritage resource personnel completed Section 106 inventories, reporting and consultation in June/July 2013, therefor achieving Section 106 compliance through channels outlined in the programmatic agreement.

The potential adverse effects of these activities have been mitigated through the implementation of mitigation-protection measures, resulting in a no adverse effect finding.

The project will have beneficial effects to cultural resources because vegetation treatments proposed will limit the effects from natural events such as fuel loading and trees falling which has the potential to damage cultural sites. This project gives the Helena National Forest an opportunity to manage and mitigate adverse effects to known cultural sites within the project area, as well as maintain integrity of sites which are eligible for listing on the National Register of Historic Places.

**Government to Government Relations**

The Forest Service has contacted the interested tribes during the analysis process (scoping and comment periods). The intent of this consultation has been to remain informed about Tribal concerns regarding the American Indian Religious Freedom Act and other tribal issues. In addition, the tribes have rights under the Hellgate Treaty of 1855, including hunting, gathering, and grazing rights. The Federal government has trust responsibilities to tribes under a government-to-
government relationship to ensure that the tribe’s reserved rights are protected. Consultation with the tribes through project planning and implementation helps accomplish these responsibilities.

**Environmental Justice**
I have reviewed the alternatives, scoping comments, 30-day comment period comments, and objections received during the objection process. Throughout those procedures no impacts to minority or low-income populations were identified. Therefore, I have determined that my decision will not disproportionately impact minority or low-income populations, in accordance with Executive Order 12898.

**Compliance with Other Laws, Regulations, and Policies**
Compliance with other laws, regulations, and policies are listed in various sections of the project record, the Forest Plan, and the EA (primarily in the Regulatory Framework and Consistency discussions).

**Conclusion**
I find that this project will not violate Federal, State, or local laws and requirements for the protection of the environment. My conclusion is based on my thorough review of this EA, the Finding of No Significant Impact (FONSI), specific design features, anticipated impacts, resource specialist’s reports, consultation with other agencies, other supporting documentation, public input, and my understanding of this project in the context of my experience with results of similar past project actions.

**Expected Implementation Date**
Project implementation is scheduled for late spring or early summer of 2014. Mechanical removal of trees from units will not occur until there are adequate site conditions including dry or winter conditions as outlined in Appendix C-Design Features. The treatment of some units will require the curing (drying) of fuel, following slashing and thinning prior to prescribe burning. For these reasons, implementation of this project may occur over the next 3 - 8 years.

**Contact Person**
For further information on this decision, contact Heather DeGeest, District Ranger, Helena Ranger District, 2880 Skyway Drive, Helena, MT 59601; (406) 495-3924; or hdegeest@fs.fed.us.
Finding of No Significant Impact

**Determinations**

I have determined that the management actions as described for the Red Mountain Flume Chessman Reservoir Project do not constitute a major Federal action, and that the implementation of my decision will not significantly affect the quality of the human environment. Subsequently, I have determined that an Environmental Impact Statement need not be prepared. I have followed the implementing regulation for NEPA (40 CFR 1508.27) and other criteria for determining the significance of effects.

Before I made my findings for the Red Mountain Flume Chessman Reservoir Project, I carefully reviewed and considered the following information:

- The direct, indirect, and cumulative effects of these actions.
- The analyses documentation in the project record.
- Comments received throughout the public involvement processes.
- Past experiences with resource management projects on the Helena National Forest.

I have evaluated this project’s actions as described under 40 CFR 1508.27 where “significantly” used in NEPA requires considerations of both **context** and **intensity**. I based my findings on the following:

**Context (40 CFR 1508.27(a))**

The anticipated effects from this project’s actions will be limited in context. Treatments were designed to remove trees and other accumulated fuels that present a risk of damage to the flume from direct impact or combustion, and from high-severity wildfire effects along the flume and around the reservoir. The activities will be limited in geographic scope including about 158 acres of ‘Fuel Break Treatment’ along the flume and about 332 acres of ‘clearcut with leave tree’ and ‘improvement cut’ around the reservoir, totaling about 490 acres (EA, pp. 2,3, 7-9). The duration of the activities will be completed within a three to eight year timeframe. This allows Forest workers the flexibility to accommodate opportunity for efficient, effective burning windows that are influenced by weather conditions and appropriate air quality ventilation. The geographic scope and duration of the anticipated activities are local in nature and are not likely to significantly affect regional or national resources in the short- and long-term. The long-term goals for these areas include re-establishment and maintenance of an appropriate density of healthy trees.

These activities contain design features (DN/FONSI Appendix C; EA, pp. 9-16) that will limit the scope and duration of the anticipated effects, affecting only the immediate areas along the flume and around the reservoir. The project’s activity prescriptions include design features that minimize short-term impacts and lower the risk of long-term adverse impacts to the flume and reservoir, while promoting healthy forests in the short- and long-term. (EA-Environmental Effects; Fuels/Fire pp. 21-27, Hydrology pp. 28-35, Vegetation pp. 42-58).

**Intensity**

The Council of Environmental Quality (CEQ) has established the following ten aspects that helped me in determining and making conclusions regarding the intensity of effects (40 CFR 1508.27(b)):

1. **Impacts may be both beneficial and adverse.** A significant effect may exist even if the Federal agency believes that, on balance, the effect will be beneficial.
The intensity of environmental effects are not biased by beneficial effects alone but are considered along with adverse effects in making determinations of significance. Following are but a few of those anticipated beneficial and potential adverse effects that helped to form the basis for my decision.

Beneficial - The following anticipated beneficial effects of implementing this project are documented in the EA and specialist reports filed in the project record:

- Treatments to be implemented (mechanical, hand, burn, etc.) will alter current fuel conditions by removal of standing dead and/or thinning of the live trees, decreasing the canopy cover, and reducing surface fuels. These actions will reduce the potential for an intense wildfire that could result in combustion of the flume’s wooden structure, falling trees damaging the flume, and airborne ash deposition in the reservoir. Post-wildfire adverse effects could include erosion, sedimentation, and ash deposition along with damage from future fallen, weakened trees (EA p. 2, and Environmental Effects; Fuels/Fire pp. 21-27, Hydrology pp. 28-35, Vegetation pp. 42-58).

- Project road improvements will reduce ongoing chronic sediment sources to Beaver Creek and Corral Gulch, which will result in a net reduction in the sediment loading as a result of implementing this project. This reduction of sediment not only helps reduce water treatment and maintenance costs in the municipal watershed but also helps to meet the goal of sediment reduction from unpaved roads in the Lake Helena TMDL (US EPA, 2004, Volume 1-Appendices) (Montana DEQ 2006, TMDL, Lake Helena, Volume II)). (EA-Design Features pp. 11-12; EA-Environmental Effects; Hydrology pp. 30-35, Soils pp. 36-41, Fisheries pp. 145-148).

- The silviculture prescriptions are designed to remove dead trees to lower risk of damage to the flume and retain functionality of the flume and reservoir and to improve forest species diversity, tree size diversity, and vigor for forest stands in the long-term (EA pp. 2, 3 & EA-Vegetation pp. 50-58).

- Coarse woody debris will be retained to meet USFS Northern Region soil standards improving nutrient recycling and overall soil productivity (EA-Soils pp. 36-41).

- In ten-plus years, recovery of some screening cover and local hiding patches will be provided in treated areas (EA pp. 5, 51, 52, 89, 91, 92).

- Removal of coarse woody debris and the development of open-grown forest with robust ground vegetation will produce habitats favorable for a variety of wildlife species (EA Wildlife Section pp. 63-133).

Potentially Adverse - The following effects from implementing this project are documented in the EA and filed specialist reports. These impacts are expected to be short-term and low risk:

- In the short-term, hiding and screening cover plus forest complexity and density currently provided by standing dead trees will either be eliminated or reduced. This result will require a site-specific forest plan amendment for Forest Plan big game standards 3 and 4a.

- Some of the screening around wet sites will be diminished but not eliminated due to design features and mitigation applied during implementation.

- Travel routes for forest wildlife averse to open habitats will be locally disrupted along the flume and around the reservoir (EA p. 64).
Some dispersed camping and local trail use may be displaced during implementation of the project (EA pp.147 & 148).

Hunting opportunities may be altered or displaced by the removal of hiding cover but will recover over time (EA pp. 147 & 148).

I find that this project will not have a significant impact on the environment, based on my review of these analyses and my consultation with specialists. All effects will be minimal or short-lived. The anticipated direct, indirect, and cumulative effects were thoroughly evaluated in the specialists’ reports, biological evaluations and biological assessments and discussed in the EA.

2. **The degree to which the proposed action affects public health or safety.**

The fuels and vegetation treatments that are designed to reduce risks to municipal water supply infrastructure will also reduce risk to forest workers and other forest users that work and recreate in this project area. Reducing the fuel loads around the flume and reservoir will likely decrease the environmental effects of a wildfire in the treated areas. This reduction in fuels may also increase suppression effectiveness for fire starts within or around the treatment units. All prescribed burning of treatment units and slash piles will comply with State Air Quality Standards and will be coordinated through the Montana/Idaho Airshed Group.

Herbicide treatments of weeds will comply with label directions and will be done in accordance with the Noxious Weed Treatment Project FEIS, Helena National Forest Record of Decision (May 2006). Project design features have also been developed to address public safety concerns associated with the proposed harvest activities and associated actions. Mitigation such as prohibiting logging operations during the first two weeks of big game rifle hunting season and limiting log-hauling to weekdays will substantially reduce potential safety concerns and public conflicts. (See Appendix C-Design Features of this decision)

I find that the actions in this project will not likely have significant impact to public health or safety and will reduce forest worker and public safety within the project area as well as continue to provide clean water to the city of Helena.

3. **Unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**

There will be no significant effects on unique characteristics of the area, because there are no parklands, prime farmlands, wild and scenic rivers, or ecologically critical area within the project or surrounding areas. The analysis area includes some wetlands but those near treatment areas will be avoided during implementation. The Forest heritage resource personnel completed Section 106 inventories, reporting and consultation in June/July 2013, therefore achieving Section 106 compliance through channels outlined in the programmatic agreement. The potential adverse effects of these activities have been mitigated through the application of mitigation protection measures resulting in a no adverse effects (DN/FONSI-Appendix C, Fisheries/Hydrology/Soils & Cultural Resources; EA-Design Features pp. 11 & 12; EA-Environmental Effects; Hydrology pp. 28-35, Heritage pp. 139-143).

4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.**

The effects on the quality of the human environment are not likely to be highly controversial. There is no known credible scientific controversy over the impacts of the proposed action. Literature
provided during public input was reviewed and evaluated to its relevance on this project and compared to that of which the Forest Service cited. Refer to the Response to Comments document filed in the project record for reasons and rationale regarding public provided literature including those provided during the objection process. Furthermore, the project was designed to avoid or minimize the effects on the quality of the human environment and is not highly controversial. Refer to the Appendix C-Design Features of this decision, the Forest Plan Consistency document filed in the project record, and Conclusions of anticipated effects for each resource in the EA and within the resource reports filed in the project record.

The Forest has completed many projects that involve the same vegetation treatment methodologies of which some are adjacent to the project area and/or within the same watershed (e.g. Forest Hazard Tree Removal, August 2010 and Clancy Unionville, Supplemental Report July 2009). Implementation of these projects has not revealed risks or potential impacts that were unique or unknown.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

Given the common, familiar actions of removing trees and implementing prescribed fire as the agency has accomplished for years, the risk on the human environment are not highly uncertain or involve unique or unknown risks. The agency has considerable experience with these actions and the lands they are implemented on. The anticipated results of these actions and how they are accomplished are well established and predictable. The evidence of the impacts and associated design features provided in the project record and the EA are within the limits that avoid any threshold of concern. (EA-Design Features pp. 7-16; EA-Environmental Effects pp. 19-162)

It is my finding that there are no uncertain or unique characteristics in the project actions that have not been previously encountered or that will constitute an unknown risk to the human environment.

6. The degree to which the action may establish a precedent for future actions with significant effects, or represents a decision in principle about a future consideration.

This project represents a site-specific action that does not set precedence for future actions with significant effects, and it does not present a decision in principle about future considerations. The analysis identifies that maintenance activities will be required to ensure that safeguards are retained around the flume and reservoir. These maintenance actions will entail vegetation management such as thinning or slashing and burning, which have not been considered to have significant effects based on past analysis. Any future project must be evaluated on its own merits and effects, regardless of the decisions made on this project. This decision including the exemptions presented in the site-specific amendment make this project compliant with the Forest Plan and capabilities of the land (EA pp. 19-162 see cumulative effects and FP Consistency for each resource).

I find that this decision does not establish a precedent or represent a decision in principle about any future management consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

An appropriate cumulative effects boundary is described by each resource discipline in the methodology sections of their reports. Within these established cumulative boundaries; known past, ongoing, and reasonably foreseeable future projects were considered and described in each specialist’s report in a temporal (over time) and geographical (space) context. Actions were included regardless of what agency or private entity undertook such actions.
Cumulative effects analysis of past Forest Plan amendments regarding wildlife standards 3 and 4(a) coupled with the non-significant amendment developed for this project concludes that project effects will not compromise the Forest’s ability to provide habitat to meet Forest Plan elk population goals. Elk population viability will remain healthy and elk will continue to be well distributed throughout the Helena National Forest. See Appendix B (Non-significant, Site-Specific Forest Plan Amendment) of this Red Mountain Flume Chessman Reservoir DN for additional details.

I find based on my review of the cumulative analyses and disclosures of these anticipated effects as displayed in the EA, the site-specific amendment for this project, Biological Assessments, Biological Evaluations, and other analyses filed in the project record, that the Red Mountain Flume Chessman Reservoir Project actions may contribute to effects from past, present and reasonably foreseeable actions, but the cumulative effects will not be significant (EA pp.19-162 see cumulative effects for each resource; DN/FONSI Appendix B-Non-significant Forest Plan Amendment pp. 6-8).

8. **The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed, or eligible for listing, in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.**

The Forest heritage resource personnel completed Section 106 inventories, reporting and consultation in June/July 2013, achieving compliance of this section through channels outlined in the programmatic agreement. The potential adverse effects of this project’s activities are mitigated through the implementation of mitigation-protection measures, resulting in a no adverse effect. The project will have a beneficial effect to cultural resources because vegetation treatments will help to limit the effects from natural events such as wildfire and falling trees, which has the potential to damage cultural sites. Implementation of this project gives the Helena National Forest an opportunity to manage and mitigate adverse effects to known cultural sites within the project area, as well as maintain integrity of sites that are eligible for listing on the National Register of Historic Places. (DN/FONSI-Appendix C Design Features Heritage; EA Design Features p. 14 and EA pp. 139-143 and SHPO letter, July 2, 2013)

In reviewing the appropriate cultural resource information I find that this project’s actions will have no significant adverse effect on districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places.

9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.**

The Forest voluntarily exercised its discretion to complete a programmatic biological assessment (BA) for the effects of continued implementation of the Helena National Forest Plan on grizzly bears within the Lincoln Ranger District and that portion of the Helena Ranger District that is west of I-15. The Helena National Forest originally consulted with the U.S. Fish and Wildlife Service in 1986 on implementation of our Forest Plan regarding effects to grizzly bears inside the area considered occupied at that time (currently the Northern Continental Divide Ecosystem (NCDE) Recovery Zone on the Lincoln Ranger District). At the time of that consultation, incidental take was not an analysis parameter within the ESA. Since then, incidental take has become part of the ESA considerations. As a result, the Forest completed consultation on that portion of the Forest considered occupied by grizzly bears – the NCDE and what was referred to as the grizzly bear distribution zone at that time. We received a biological opinion on June 8, 2006 which concluded that at the end of a 5-year period, the environmental baseline would be reviewed and a determination rendered as to whether the
incidental take statement needed to be modified or extended. Since 2006, grizzly bears have further extended their range south throughout the Continental Divide region of the Helena Ranger District (referred to as the Divide Landscape). As a result, the Forest prepared the programmatic BA to address the effects of Forest Plan implementation in areas where grizzly bears are considered present. The Forest received a biological opinion from the USFWS on February 14, 2014.

The Forest also prepared a project-level BA to determine the effects from the Red Mountain Flume Chessman Reservoir Project on grizzly bears, lynx and wolverine that may be present in the project area. That BA concluded that the project ‘may affect but is not likely to adversely affect’ grizzly bears or lynx or their habitat and that the project ‘is not likely to jeopardize the continued existence’ of wolverines. The project-level BA tiers to and is consistent with the programmatic BA.

Details in the USFWS programmatic BOs, the HNF BAs, and the USFWS concurrence letter are filed in the project record and available for review along with other supporting documents that led to the following determinations (BAs-All; BOs-All; EA Grizzly-pp. 66, 67, 73 and Lynx-pp. 108-125). Below are the identified threatened (T), endangered (E) or proposed species or their habitat in this project area.

<table>
<thead>
<tr>
<th>Species</th>
<th>Category</th>
<th>Status</th>
<th>Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grizzly Bear</td>
<td>threatened</td>
<td>Grizzlies may range through the project area on rare occasions. The potential for negative encounters between bears and humans during project operations is very low. The proposed action will not alter habitat in a way that will negatively affect grizzly bears.</td>
<td>May affect, but not likely to adversely affect</td>
</tr>
<tr>
<td>Canada Lynx</td>
<td>threatened</td>
<td>Lynx range into the project area on occasion. Proposed fuels treatment will break up 35 acres of fragmented multi-storied winter snowshoe hare habitat. This will slightly lower local foraging opportunity for lynx but will not meaningfully impact their ability to continue occupying the area. All treatment units are in a WUI zone, where fuels treatment is allowed under the NRLMD</td>
<td>May affect, but not likely to adversely affect</td>
</tr>
<tr>
<td>Wolverine</td>
<td>Proposed</td>
<td>Wolverines have not been reported in the project area. However, they have been reported in the general vicinity of the project area particularly along the Continental Divide and may move through the project area on occasion.</td>
<td>Not likely to jeopardize the continued existence</td>
</tr>
</tbody>
</table>

The project is outside of lynx critical habitat; as such there are no-effects (EA-Lynx p. 112).

This project lies outside the range of bull trout on the Helena National Forest, a species listed as ‘T’ under the Endangered Species Act. As a result, there will be no effects on bull trout or bull trout critical habitat (EA Fisheries-p. 146).

No plants that are federally listed or proposed by the U.S. Fish and Wildlife Service are known or suspected to occur on the Helena National Forest; therefore there will be no effects on T or E plant species. (EA Sensitive Plants-pp.133-138).
10. Whether the action threatens to violate Federal, State, or local law or requirements imposed for the protection of the environment.

The Regulatory Framework and Consistency sections in the EA and Specialist Reports contain discussions of the applicable and relevant Laws, Executive Orders or other resource protection requirements such as consultation with other agencies. For discussions regarding some of the direction listed, see the “Findings by Other Laws and Regulations” section in the Red Mountain Flume Chessman Reservoir Decision Notice. The following are just a few that were taken into consideration:

- National Forest Management Act
- National Environmental Policy Act
- Clean Water Act
- Clean Air Act
- Endangered Species Act
- Migratory Bird Treaty Act
- National & State Historic Preservation Act
- Archeological Resource Protection Act
- Executive Order 11988 (floodplains)
- Executive Order 11990 (wetlands)
- Montana Water Quality Act

In reviewing the above documents and the discussions of the applicable and relevant laws and regulations, I find that the actions for the Red Mountain Flume Chessman Reservoir are within protection parameters and expectations and do not represent a significant effect on the environment.

Signature and Date

[Signature]

WILLIAM AVEY
Forest Supervisor
Helena National Forest

Date: 6/7/14

Data Accuracy: The Forest Service uses the most current and complete data available. Geographic information system (GIS) data and product accuracy may vary. They may be developed from sources of differing accuracy, accurate only at certain scales based on modeling or interpretation, incomplete while being created or revised, etc. Using GIS products for purposes other than those for which they were created, may yield inaccurate or misleading results. The Forest Service reserves the right to correct, update, modify, or replace, GIS products without notification.

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