

DECISION MEMO
for
Direct Control Efforts for Mountain Pine Beetle at
Eldora Mountain Resort

Arapaho-Roosevelt National Forests
Boulder Ranger District

DECISION AND RATIONALE

I have reviewed Eldora Mountain Resort's proposal to initiate direct control measures against mountain pine beetle (MPB) and the associated environmental review documentation. Based on this review, I have decided to approve the following actions, which constitute the proposed action addressed in this Decision Memo:

- Felling infested trees. Infested trees will be felled by hand, and those located within 250 feet of trail edges or roads will be removed by skidding them out over snow with a winch cat to minimize surface disturbance. Infested trees more than 250 feet from trail edges or roads will be felled, limbed, and peeled by hand and left in place. An estimated 592 trees will be felled in stands covering an area of 19.1 acres on National Forest System (NFS) land in 2007. Removed trees will be disposed of on site (e.g., by chipping or burning in an air curtain burner to minimize air quality impacts) or hauled to a safe, off-forest location.
- Spraying unaffected trees. Unaffected trees in critical areas that serve as tree screens or windbreaks will be sprayed with Carbaryl. This will affect about 6 acres on NFS land in 2007, mainly at the tops of the Challenge, Indian Peaks and Corona lifts.
- Areas of potential future treatment have also been identified. These areas, mainly on the front side of the mountain and along the ridgeline to the west. These areas total about 180 acres. The same direct control measures outlined above will be implemented if the infestation spreads to these areas.

Other MPB control efforts are taking place on private land. Total NFS land potentially affected by this proposal is about 203 acres. No new road construction will occur.

These efforts are intended to manage the spread of MPB in concert with other public and private efforts and to protect key forest stands at the ski area. Protecting these stands will maintain wind protection, snow retention, safe skier traffic flow, wildlife habitat, soil stability between ski trails, and aesthetically pleasing foreground and background views.

DESIGN CRITERIA AND MITIGATION MEASURES

As part of my decision, implementation of the design criteria and mitigation measures listed below will be required on NFS land and recommended on private land. As the project area contains potential wetland habitat for sensitive animal and plant species and is within the town of Eldora's watershed, protection of water quality is a primary consideration. Fire hazard and

chemically sensitive individuals are other important factors. The following design criteria and mitigation measures have been identified through our analysis to reduce these and other concerns.

1. These Watershed Conservation Practices (WCPs) from FSH 2509.25, effective May 2006, will be followed:
 - a. Management Measure (MM) 13.3—Stabilize disturbed sites during and after operations to control erosion. Utilize the erosion control measures for working on steep slopes outlined in Eldora Ski Area Permit in the areas disturbed by winching logs.
 - b. MM 15.1—Place new sources of chemical and pathogenic pollutants where such pollutants will not reach surface or ground water. Have spill contingency plans in place and have the appropriate equipment and supplies for spill clean up on the truck at all times. Clean up spills immediately and if truck tank spills, call the Forest Service Hazardous Materials Contact for the Boulder Ranger District—David Buchanan, 303-258-9193, or 303-506-7659.
 - c. MM 15.3—Apply chemicals using methods that minimize risk of entry to surface and ground water. Maintain buffers around wetlands, perennial and intermittent streams and other water bodies of 100 feet to minimize the opportunity of the pesticide reaching these hydrologic features. For ephemeral streams use a buffer of 50 feet unless there is water or snow present and then use a buffer of 100 feet. Spraying should take place after snowmelt and runoff are over; any remaining snow under sprayed trees should be covered with impermeable sheeting or tarps. Spraying should not take place when rain or snow is in the forecast or winds exceed 5 miles-per-hour in order to contain the spray in designated areas. Carbaryl is not an approved aquatic pesticide so application near water bodies and wetlands need to adhere to the buffers to minimize the risk of impact.
2. Any trees that are not removed from the site will be felled and bucked so that boles are in full contact with the ground. Slash will be patchy and discontinuous. As much biomass as possible will be removed. Snags will be retained to maintain cavity nesting wildlife habitat.
3. Deanna Williams of the Forest Service will be contacted (303-245-6416) if any raptor nests, including cavity nests, are located in trees scheduled to be cut. Impacts on raptors and their nesting cycle will be avoided and a determination will be made when/if any such nests are located.
4. Any burning on National Forest System land will be conducted by qualified Forest Service employees. Notice will be provided to sensitive receptors and individuals prior to burning.
5. Skidding and burning of logs and slash piles will be done over snow cover to the extent feasible. If adequate protective snow cover is not in place during the implementation of the project, the erosion control measures outlined above will be implemented, and Eric Schroder of the Forest Service will be contacted for more information on soil protective practices.

6. Any trees cut within 100 feet of a wetland or riparian area will either be skidded out over the snow or limbed and peeled by hand and left in place. (Note: no cutting is slated for wetlands or riparian areas at this time.)
7. The type and amount of chemicals applied will be reported to the Forest Service for an annual pesticide use report.
8. Any chemically sensitive people registered as such with the state will be notified by the Boulder Ranger District prior to any spraying or open burning activities. Others who want such notification can contact the District and request it.

REASONS FOR CATEGORICALLY EXCLUDING THE DECISION

Decisions may be categorically excluded from documentation in an environmental impact statement or environmental assessment when they are within one of the categories identified by the U.S. Department of Agriculture in 7 CFR part 1b.3 or one of the categories identified by the Chief of the Forest Service in Forest Service Handbook (FSH) 1909.15 sections 31.1b or 31.2, and there are no extraordinary circumstances related to the action that may result in a significant individual or cumulative environmental effect.

This project is within the categories of exclusion found in Forest Service Handbook 1909.15, Chapter 31.2 (14) that allows for “Commercial and non-commercial sanitation harvest of trees to control insects or disease, not to exceed 250 acres, requiring no more than ½ mile of temporary road construction, including removal of infested/infected trees and adjacent live uninfested/uninfected trees as determined necessary to control the spread of insects and disease.” Also, Chapter 31.1(b)(5): Repair and maintenance of recreation sites and facilities” applies here. An example given by the Handbook of this exclusion is “Applying registered insecticides by compressed air sprayer to control insects at a recreation site complex.”

In regard to extraordinary circumstances, the Forest Service Handbook lists several topics that should be considered (1909.15, 30.3, 2 a – g). Forest Service and contractor resource specialists visited the project area, reviewed relevant studies and other published information, and documented their findings regarding these and other potential extraordinary circumstances in the project file. Based on their findings, summarized below, I have determined that there are no extraordinary circumstances that preclude application of the categorical exclusion noted above.

Steep slopes or highly erosive soils. The project area comprises ski terrain that, by definition, is steep. Soils found here are susceptible to erosion. However, in accordance with design criteria and mitigation measures 1a and 5, steps will be taken to reduce erosion hazard during and after the treatments. Past NEPA analyses and experience have shown these steps to be effective. Based on these considerations, steep slopes or highly soils do not constitute an extraordinary circumstance for this proposed action.

Special status plant and wildlife species. A biological assessment (BA) was prepared for this project. The determination reached was that no federally listed or candidate plant or animal species will be affected except Canada lynx, and that this species is not likely to be adversely affected. A biological evaluation (BE) was also prepared, concluding that the project may impact the following Forest Service sensitive plants or animals but this will not contribute to a trend toward federal listing or loss of viability:

- American three-toed woodpecker
- Boreal toad
- Boreal owl
- Flammulated owl
- Lake chub
- Leatherleaf moonwort
- Northern goshawk
- Northern leopard frog
- Olive-sided flycatcher
- Pygmy shrew
- Rocky Mountain capshell snail
- Selkirk violet
- Slender moonwort
- Weber monkeyflower

Design criteria and mitigation measures 2, 3, and 6 will avoid or minimize such impacts. A management indicator species (MIS) report was also prepared, and found that this project will have no notable effect on MIS species or the habitat types they represent. Based on these considerations, special status species or their habitats do not constitute an extraordinary circumstance for this proposed action.

Flood plains, wetlands, or municipal watersheds. As noted above in design criteria and mitigation measures 1c and 6, spraying will not take place within 100 feet of wetlands, and tree removal will not take place within this zone unless done over snow. Outside these buffers, other design criteria and mitigation measures will insure that adequate erosion control measures are in place to protect watershed values. The 2004 *Arapaho National Recreation Area Forest Health Project* FEIS analyzed the impacts of similar treatments on watershed resources and found minimal impact if done properly. Based on these considerations, flood plains, wetlands, or municipal watersheds do not constitute an extraordinary circumstance for this proposed action.

Congressionally designated areas, such as wilderness, wilderness study areas, or National Recreation Areas. The project area does not include any designated wilderness, wilderness study area, or National Recreation Area, so such areas do not constitute an extraordinary circumstance for this proposed action.

Inventoried roadless areas. The project area does not include any inventoried roadless areas, so such areas do not constitute an extraordinary circumstance for this proposed action.

Research Natural Areas. The project area does not include any Research Natural Areas, so such areas do not constitute an extraordinary circumstance for this proposed action.

American Indian and Alaska Native religious or cultural sites. No known American Indian or Alaska Native religious or cultural sites exist in the project area. Based on this fact, American Indian and Alaska Native religious or cultural sites do not constitute an extraordinary circumstance for this proposed action.

Archaeological sites, or historic properties or areas. The Colorado Historic Society reviewed the proposal, and concurred with the Arapaho-Roosevelt National Forests (ARNF) archaeologist's finding of "no historic properties affected."

FINDINGS REQUIRED BY OTHER LAWS

The only finding required by other laws not addressed directly or indirectly above is Forest Plan compliance in accordance with the National Forest Management Act. The proposed action has been evaluated for consistency with the goals, objectives, standards, and guidelines of the 1997 Revised ARNF Forest Plan. The project area is located within a 8.22 Management Area, which

emphasizes ski-based resorts operating under the terms of a special use permit, and the proposed action is consistent with the management area prescription.

PUBLIC INVOLVEMENT

This project was posted on January 1, 2007, on the ARNF Schedule of Proposed Actions located on this website: www.fs.fed.us/sopa/forest-level.php?110210

On March 15, 2007, the ARNF circulated a scoping notice summarizing this proposal and soliciting input on associated environmental issues and concerns. The notice was mailed to 228 individuals, organizations, and agencies. The 30-day scoping period closed April 14, 2005. Comment letters were received from seven individuals.

Documentation of this public scoping process including a scoping analysis report (description of the process, list of commentors, synthesis of comments, and response to significant comments), which is attached. The scoping comments helped guide our review of the proposed action for extraordinary circumstances that would preclude the exclusion.

IMPLEMENTATION DATE

This decision, pursuant to 36 CFR 215.8(a)(4), is not subject to appeal. The authorized direct MPB control efforts can be initiated immediately.

CONTACT PERSON

For further information contact Laura B. Pramuk at:

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I have concluded that this decision may be categorically excluded from documentation in an environmental impact statement or environmental assessment as it is within one of the categories identified by the U.S. Department of Agriculture in 7 CFR part 1b.3 or one of the categories identified by the Chief of the Forest Service in Forest Service Handbook (FSH) 1909.15 sections 31.1b or 31.2, and there are no extraordinary circumstances related to the decision that may result in a significant individual or cumulative environmental effect. My conclusion is based on information presented in this document and the entirety of the planning record.

/s/Christine M. Walsh
Christine M. Walsh
District Ranger

May 10, 2007
Date

Attachment: Scoping Report

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Eldora Mountain Pine Beetle Treatment Public Scoping Report

Prepared by
Cirrus Ecological Solutions, LC
Logan, Utah

April 17, 2007

Introduction

The Arapaho and Roosevelt National Forests (ARNF) prepared a scoping notice and map summarizing the Eldora Mountain Resort's mountain pine beetle (MPB) treatment proposal, the purpose and need for the proposed treatments, and the contact information for questions and comments. The notice solicited comments regarding the issues and concerns to be considered, noting that comments should be submitted within 30 days.

The notice was mailed on March 15, 2007, to 228 interested individuals, organizations, and agencies on a Forest Service-prepared mailing list. A legal notice was published in the newspaper of record, the *Boulder Daily Camera*, on March 15, 2007. The 30-day scoping period closed 30 days after the legal notice was published. Comment letters were received from seven individuals.

Results

Table 1 lists each comment letter, identifying the code number assigned to it, the name and address of the commenter, and quotes or paraphrases of each comment extracted from the letter. Letter ID codes correspond to individuals (I1-I7) who provided scoping responses. Extracted comments are followed by a code identifying the letter ID and each comment's sequence in the letter (e.g., I1-1 is the first comment in letter I1). The full text of all letters is included in the project record.

Letter ID	Name and Date Received	Address	Synthesis of Comments
I1	David Cook, April 9	1718 W 33 rd Ave Denver, CO 80211	"I urge you to consider finding an alternative method to spraying (I1-1)."
I2	Diane Brown, April 9	2478 Eldora Rd Nederland, CO 80466	Concerned about pesticide in melted snow runoff (I2-1). Disturbed about biological impacts of spraying (I2-2).
I3	Audrey Godell, April 9	135 S 8 th St Nederland, CO 80466	Concerned about pesticide's effects on fish and pollinators (I3-1).

			<p>Eldora is in a key watershed (I3-2). “We must find better solution than spraying (I3-3).”</p> <p>An EIS is needed to assess pesticide impacts (I3-4).</p>
I4	Dave Hallock, April 11	2478 Eldora Rd Nederland, CO 80466	<p>Runoff could affect aquatic habitat (I4-1).</p> <p>Runoff could affect drinking water (I4-2).</p> <p>Concerned about pesticide in melted snow runoff (I4-3).</p> <p>Carbaryl toxic to mollusks (capshell snail) (I4-4).</p> <p>Will sprayers shut down when wind exceeds 5 MPH (I4-5)?</p>
I5	Suzanne Adams, March 29	1905 Linden Dr Boulder, CO 80304	<p>Supports plan for preservation of forest and elimination of fire hazard (I5-1).</p>
I6	Betina Matteson, April 4	2440 5 th St Boulder, CO 80304	<p>Weigh results against risks to soil, air, and water (I6-1).</p> <p>Project will increase fire hazard (I6-2).</p> <p>Burning will pollute air and risk wildfire (I6-3).</p> <p>“Why apply...during nesting season (I6-4)?”</p> <p>“How will you inform people of chemical activity (I6-5)?”</p> <p>How will Eldora skid trees across snow when snowpack is disappearing (I6-6)?</p> <p>Work out public access issues (I6-7).</p> <p>Explain how recent court decisions will affect these proposals (I6-8).</p>
I7	Gunda Starkey	P.O. Box 231 Nederland, CO 80466	<p>“Worried about pesticide drift infiltrating my home (I7-1).”</p> <p>Spray only after notification, and when wind is from the north. Keep residents updated (I7-2).</p>

Processing of Issues

At the close of the 30-day scoping period, 23 comments had been received from seven commentors. Of these comments:

- 3 addressed air quality.
- 3 addressed alternatives.
- 5 addressed biology.
- 2 addressed fire.
- 5 addressed miscellaneous topics.
- 1 addressed the NEPA process.
- 4 addressed water quality.

These comments and responses to them are presented below.

Air Quality

- “Will sprayers shut down when wind exceeds 5 MPH (I4-5)?”

Response: Spraying guidelines for this project state that spraying should not take place when rain or snow is in the forecast or winds exceed 5 miles-per-hour in order to contain the spray in designated areas. Adherence to these guidelines will be a requirement of agency approval of the project. Failure to comply will be grounds for rescinding approval.

- “...worried about pesticide drift infiltrating my home (I7-1).”

Response: Since the pesticide will be applied directly to trees during low-wind conditions, pesticide drift should be minimal.

Alternatives

- “I urge you to consider finding an alternative method to spraying (I1-1).”
- “We must find better solution than spraying (I3-3).”
- Weigh results against risks to soil, air, and water (I6-1).

Response: According to the 2004 *Final Environmental Impact Statement (FEIS) for the Arapaho National Recreation Area Forest Health Project*, only two pesticides are registered for use to protect pines from bark beetle attack. Of the two, Carbaryl requires less frequent application (every other year) than the alternative (applied annually). Since this pesticide is applied directly to the tree, effects are limited to the tree and immediately adjacent soil. The 2004 FEIS considered Carbaryl to be effective and safe when used to control MPB. Furthermore, the Forest Service has assessed the effects of this treatment at other ski areas, including Winter Park, and found no significant adverse impact. See also the responses under Air Quality, Biology, and Water Quality.

Biology

- Disturbed about biological impacts of spraying (I2-2).

- Concerned about effects on fish and pollinators (I3-1).
- Runoff could affect aquatic habitat (I4-1).

Response: A biological assessment (BA), a biological evaluation (BE), and a management indicator species (MIS) report were prepared for this project. These reports documented analysis that confirmed no significant adverse effects on these categories of species or their habitats as long as identified design criteria and mitigation measures are in place. Among the design criteria are requirements that 100-foot buffers are in place around wetlands and water bodies and that spraying take place only when runoff is over and soils are dry. Alternatively, any remaining snow beneath sprayed trees must be covered with impermeable plastic sheeting or tarps. These measures will reduce the threat of chemical runoff or drift into aquatic habitat. Applying Carbaryl directly to trees also reduces damage to non-target species, but some minor adverse impact on pollinator insects is anticipated and discussed.

- Carbaryl toxic to mollusks (capshell snail) (I4-4).

Response: Potential effects on the capshell are discussed in the BE cited above, which concludes that the design criteria and mitigation measures noted above will reduce the potential for Carbaryl to enter Peterson Lake to an acceptable level. No impact on the population or increase in the likelihood of federal listing of the species is anticipated. Also, no treatment zones are near Peterson Lake.

- “Why apply...during nesting season (I6-4)?”

Response: The 2004 FEIS found that Carbaryl poses little or no threat to warm-blooded animals since it is readily absorbed onto bark surfaces or soil particles and then broken down. To be safe and effective, spraying must occur after snowmelt but before MPBs begin their flight in mid summer.

Fire

- Project will increase fire hazard (I6-2).
- Burning will pollute air and risk wildfire (I6-3).

Response: Mitigation measures will be in place to reduce these concerns. First, as many felled trees as possible will be removed to decrease fuel loads. Trees that are felled and left in place will be placed so that boles are in full contact with the ground. This will cause these trees to stay moist and rot rather than dry out. Any burning will be done under an approved burn plan, and an air curtain destructor may be employed if deemed necessary. Any burning on National Forest System land will be supervised by a qualified Forest Service official. Removed trees may also be chipped or hauled to a safe, off-forest location.

Miscellaneous

- How will Eldora skid trees across snow when snowpack is disappearing (I6-6)?

Response: Tree clearing will begin immediately upon approval of this proposal, to take advantage of remaining snow. In cases where sufficient snow is unavailable, erosion control Best

Management Practices included among the design criteria and mitigation requirements will be utilized to minimize erosion, sedimentation, and damage to soil surfaces.

- Spray only after notification, and when wind is from the north. Keep residents updated (I7-2).
- “How will you inform people of chemical activity (I6-5)?”

Response: As stipulated in the design criteria and mitigation measures, chemically sensitive people who are registered as such with the state or who request such notification will be notified by the Boulder Ranger District prior to spraying. While wind direction requirements are not in place, wind speed must be taken into account before spraying (see Air Quality above).

- Work out public access issues (I6-7).
- Supports plan for preservation of forest and elimination of fire hazard (I5-1).
- Explain how recent court decisions will affect these proposals (I6-8).

Response: These comments are outside the scope of this analysis.

NEPA Process

- An EIS is needed to assess pesticide impacts (I1-4).

Response: An EIS was prepared in 2004 for the *Arapaho National Recreation Area Forest Health Project*, which included spraying of Carbaryl to control MPB. This analysis found such treatment to be safe and effective, with minimal negative impacts. Analysis of this treatment has also been conducted at Winter Park. For these reasons, extensive analysis of this project is not necessary, and the project qualifies for categorical exclusion (Forest Service Handbook 31.2 [14]).

Water Quality

- Concerned about pesticide in melted snow runoff (I1-1, I4-3).
- Eldora is in a key watershed (I3-2).
- Runoff could affect drinking water (I4-2).

Response: Design criteria and mitigation measures that will be required as conditions of approval include 100-foot buffers around wetlands and water bodies and a provision that spraying either take place after runoff is complete and soil dry, or that any snow that is left under sprayed trees is covered with impermeable plastic sheeting or tarps. Further, since Carbaryl is applied directly to trees, potential for runoff or drift is limited. These factors will preclude any notable water quality impact.