

## **SUPPLEMENTAL DETERMINATION**

### **Rangeland Grasshopper and Mormon Cricket Suppression Program in Harney County, Oregon EA Number OR-2010-01**

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), has prepared a Supplemental Determination that analyzes potential environmental impacts for a grasshopper/Mormon cricket suppression program on range and grassland managed by Department of Interior, Bureau of Land Management (BLM), in Harney County, Oregon. The proposed treatment consists of 25,000 acres (+/- 25%) in three blocks along East Steens Mountain Road between Hwy 78 and Fields, Oregon.

This is a Supplemental Determination to APHIS Environmental Assessment (EA) OR-2010-01, incorporated by reference in this document, and available from USDA APHIS PPQ, Airport Business Center, 6135 NE 80<sup>th</sup> Avenue, Suite A-5, Portland, OR 97218, or on-line at [http://www.oregon.gov/ODA/PLANT/IPPM/gh\\_ea10.shtml](http://www.oregon.gov/ODA/PLANT/IPPM/gh_ea10.shtml). During the EA comment period APHIS received two comments, in writing, from the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Klamath Tribes. The Klamath Tribes comments were directed at EA OR-2010-02 Klamath County. However the comments regarded wording in the EA pertaining to tribal resources, and resulted in changes being made to both EAs.

At the request of the BLM a suppression program is planned to control grasshoppers on rangeland to protect forage, wildlife habitat and cover, and to prevent grasshoppers from migrating to nearby private pasture and hay fields. The dense populations are comprised of several economically damaging species including *Aulocara ellioti*, *Oedaleonotus enigma*, *Melanoplus sanguinipes*, *M. packardii*, and *M. femurrubrum*.

#### **Resources in the Suppression Area and Protection Measures and/or Mitigations:**

The area under consideration for treatment involves approximately 8000 +/- acres north of Mann Lake, 2683 +/- acres in the Bone Creek area north of Fields, OR, and 15,000 +/- acres near Folly Farm Flat. The land that will be treated is fenced BLM rangeland used mainly for grazing. Much of the planned treatment area has burned in the past decade. The pre-burn, potential vegetation was mostly big sagebrush shrub-steppe. The dominant vegetation on the treatment sites is now a mixture of native grasses and shrubs and crested wheatgrass. There are nearby private hay and rangelands that are vulnerable to grasshopper migration off of infested BLM lands.

The area is extremely dry. There are numerous seasonal streams in these blocks, all but three of which are already dry. One stream, Scoubes in the Bone Creek block is protected by a programmatic 500' buffer. Another stream flows into Mann Lake and both are considered habitat for the threatened Lahontan cutthroat trout, as is Stonehouse Creek. These three water bodies are protected by a 0.5 mile no treatment buffer. Carbaryl is toxic to aquatic invertebrates and moderately toxic to fishes. These buffers are used to prevent spray from entering any water body. Dye cards will be used to monitor that drift does not reach water.

Carbaryl is slightly toxic to birds, reptiles or mammals via oral, dermal or inhalation exposure. Carbaryl will have the greatest affect to insects that consume treated vegetation, including grasshoppers as well as herbivorous non-target insects. Carbaryl is also toxic to pollinators that consume treated pollen and feed it to their larvae. By using Reduced Area – Agent Treatment (RAATs) untreated swaths are alternated with treated swaths to act as a refuge for non-target species to survive and quickly repopulate the area after treatment. The rate of active ingredient is also reduced to decrease exposure yet still achieve good grasshopper mortality. The RAATs method is based on the greater mobility of young grasshoppers compared to other insects, as grasshoppers will quickly move from an untreated to a treated area and consume treated vegetation.

Federal and state listed sensitive species not covered in detail in the EA, that may be present in the area at the time of treatment, include burrowing owl, goshawk, ferruginous hawk, and sage grouse. However sage grouse should be at higher elevation than the treatment areas at this time of year.

Insects, including grasshoppers, make up a portion of the diet of many species. A reduction in grasshoppers as prey may result from this suppression program. However, insects in the untreated swaths will be unaffected by the treatment, and not all grasshoppers present in the treatment area will be killed by this program and be available as a food source. This project should not adversely affect any of the listed sensitive species.

With respect to ground dwelling and nesting species, reducing the outbreak population of grasshoppers to a normal background level will preserve habitat, cover, and food which would eventually be denuded by grasshoppers if they were left unchecked.

There is a primitive campground at Mann Lake that is infrequently used. The ½ mile buffer required for Lahontan cutthroat trout provides adequate buffer to prevent exposure to any campers that may be present. Project personnel will be sure no one enters the treatment areas through any of the few gated roads during treatment. There should be no exposure to humans, other than the applicators and project monitoring personnel. Applicators and project personnel will follow safety guidelines and label instructions. The label allows grazing the day of application so there is no need to move livestock during treatment.

No other chemical applications (insecticides, herbicides) are planned in the area this year, but if they did occur, there will be no cumulative effects from this carbaryl application.

**Application Information:**

APHIS proposes to use 12 ounces Sevin XLR Plus + 12 ounces of buffered water per acre treated leaving 100 feet untreated between treated swaths using the reduced area agent treatment (RAATs) strategy described on page 10 of the EA. Treatment will be done by aircraft. The percent of the area untreated will depend on the swath width of the contractor's aircraft, and could range from 33-50%.

**Summary:**

Based on the analysis of potential environmental impacts within the delimited suppression area, the implementation of the treatment guidelines (containing the operational procedures), the buffering of water, and the lack of other sensitive sites in or near the proposed treatment area, APHIS has determined that the proposed suppression program will not significantly impact the quality of the human environment.

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State Plant Health Director

7-20-2010  
Date