Finding of No Significant Impact
Curly Top Virus Control Program in California

AGENCY: U.S. Department of Energy (DOE)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY

The DOE, Naval Petroleum Reserves in California (NPRC), proposes to sign an Amendment to the Cooperative Agreement and Supplement with the California Department of Food and Agriculture (CDFA) to extend the term of the Curly Top Virus Control Program (CTVCP) in California. This program involves Malathion spraying on NPRC lands to control the beet leafhopper, over a 5-year period from 2002 through 2006. It is expected that approximately 2,000 acres on Naval Petroleum Reserve No. 2 (NPR-2) will be treated with Malathion annually by CDFA during the course of this program. The actual acreage subject to treatment can vary from year to year.

Pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA), as amended, the potential impacts of the proposed action were analyzed in a Joint Environmental Assessment (DOE/EA-1363) with the U.S. Department of Interior, Bureau of Land Management (BLM) acting as lead agency, in consultation with the CDFA, and the DOE acting as a cooperating agency. Based on the analysis in the EA, DOE has determined that the conduct of the Curly Top Virus Control Program in California is not a major Federal action significantly affecting the quality of the human environment, within the meaning of the NEPA. Therefore, the preparation of an Environmental Impact Statement is not required and DOE is consequently issuing a FONSI.

COPIES OF THE EA ARE AVAILABLE FROM:

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BACKGROUND:

NPRC has cooperated since 1987 with the CDFA's aerial spraying of the insecticide Malathion on portions of NPR-2. This action is part of a much larger Malathion spraying program conducted annually by CDFA throughout the southern and central portions of California. Malathion applications control populations of the beet leafhopper, an insect that threatens many commercial agriculture crops by transmitting the curly top virus.

DESCRIPTION OF THE PROPOSED ACTION:

Annual Malathion spraying would continue to be conducted at NPRC as it has been each year since 1987, in accordance with the Cooperative Agreement and the Supplements signed by DOE/NPRC and CDFA. Since the term of the existing Agreement and the Supplement has expired, DOE/NPRC and CDFA will execute another amendment to extend the term of the Agreement from 2002 through 2006. Malathion would be applied at the rate of 0.583 pounds of active ingredient per acre. This compares to recommended dosages ranging from 0.292 to 1.166 pounds of active ingredient per acre for insect pests on various agriculture crops. Treatment of NPRC lands with Malathion would be limited to no more than one treatment per any given area within a calendar year. Additionally, the application of Malathion will consist solely of aerial spraying over NPR-2 lands. As described in the EA, agreements have been achieved between DOE/NPRC and CDFA to ensure compliance with environmental protection, appropriate notification, monitoring and reporting, as well as requirements for human health and safety during the spraying operations. The Cooperative Agreement, the Supplement, and The Amendment proposed for DOE/NPRC signature will remain in effect through December 31, 2006 or until such time that NPR-2 is transferred by the federal government.

ENVIRONMENTAL IMPACTS:

The impacts of aerial spraying would be localized and temporary. Activities conducted for beet leafhopper control are highly mobile, move through an area quickly, and are performed during daylight hours only away from populated areas. Malathion has a low vapor pressure and is essentially non-volatile. It is not among the substances identified by the U.S. Environmental Protection Agency as a hazardous air pollutant to be regulated under Section 112 of the Clean Air Act. Small amounts of soil compaction and dust from observer vehicles and aircraft would be created.
Malathion degrades relatively rapidly by hydrolysis and the action of soil mechanisms, and does not absorb well onto inorganic soil particles, but does bind tightly to organic matter. Consequently, Malathion is not expected to leach into groundwater, especially in areas with high organic content soils. Malaoxon, a degradation product of Malathion in soil, has a similar toxicity level and is itself degraded by hydrolysis with a half-life of 3.9 to 5 days. Populations of soil microorganisms are not expected to be significantly altered.

Indirect effects of temporarily reducing numbers of insects utilized as food for other animals is not expected to be significant because of the large foraging area, movement of prey insects from adjacent non-treated areas, and reduced impact to nocturnal flying prey insects from daytime treatments. For more than 30 years, Malathion has been used in rangeland and cultivated fallow fields to control the beet leafhopper, which is the target vector for the Curly Top Virus Control Program. No visual evidence of significant impact to vegetation or wildlife has been observed during post-treatment surveys.

Malathion may enter aquatic streams in runoff, if isolated thundershowers occur over treated areas before complete degradation of Malathion has taken place. However, the relatively quick degradation of Malathion by ultraviolet light and hydrolysis reduces the potential for residues in run-off waters or soils. Water bodies are strictly avoided during the program and adequate buffer areas are provided to prevent drift of materials into any bodies of water. Additionally, spraying operations will be discontinued if more than 0.25 inches of precipitation is forecasted within 48 hours of the time of application.

Pursuant to the requirements of Section 7 of the Endangered Species Act, a formal biological consultation was completed for this program with the U.S. Fish and Wildlife Services (FWS) and resulted in a biological opinion dated November 21, 2001. The biological opinion, entitled “Renewal of a Five-year Pesticide Use Permit to the California Department of Food and Agriculture For Use of Malathion to Control Curly Top Virus,” concludes that the proposed action is not likely to jeopardize the continued existence of threatened or endangered species under the conditions set forth therein. It is recognized that all mitigation measures outlined in this biological opinion will be implemented by the CDFA. Upon approval of this FONSI, an amendment to the existing cooperative agreement between CDFA and DOE will be issued subject to the conditions set forth in the biological opinion.

ALTERNATIVES CONSIDERED:

Alternatives to the proposed action were considered in the EA, including a reduced project alternative involving only private lands and the no action alternative. The no action alternative and use only on private lands were determined to be unacceptable because neither would meet the public need to control the curly top virus and thereby prevent loss of agriculture products in California.
Other alternatives considered but rejected were the use of an alternative pesticide, the eradication of all beet leafhopper host plant species in rangeland areas, local eradication of a single host plant species, biological control only, and the use of ground vehicles for application. Because Malathion is considered one of the safest pesticides and no other pesticide is registered for use in California for control of the beet leafhopper, the use of alternative pesticides was considered but rejected. The eradication of host species alternatives were rejected due to the overwhelming costs and the impacts to the ecosystem and wildlife dependence on the host plants. The ground vehicle application alternative was rejected due to the impacts to habitat and the restrictions against off-road vehicle travel that are imposed by the public agencies participating in the CTVCP.

Recommendations regarding alternatives were received from individuals, groups, and agencies in response to the EA and the proposed project. Mitigation measures were developed as terms and conditions to the proposed action in response to public and agency comments on the EA. Specific areas identified in the Coast/Valley Resource Management Plan were eliminated from the treatment area. Concern for cumulative effects identified the need to limit the number of applications. Further limitations and additional monitoring were found necessary in order to minimize impacts to several protected species under the Endangered Species Act. Public notification prior to spraying would be given to safeguard public and land use activities. In particular, owners and operators of apiary sites and livestock would be notified. A detailed spill contingency plan would be implemented to prevent or reduce adverse consequences of any spills.

DETERMINATION:

The proposed Curly Top Virus Control Program in California at NPRC does not constitute a major Federal action significantly affecting the quality of human environment within the meaning of the National Environmental Policy Act. This finding

is based on the analyses in the EA. Therefore, an Environmental Impact Statement for the proposed action is not required.

Issued at Bakersfield, California, this _____ day_____ 2002.

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in California