United States Department of Agriculture

Marketing and Regulatory Programs

Animal and Plant Health Inspection Service

Gypsy Moth Cooperative Eradication Program in California

Environmental Assessment February 2009

Gypsy Moth Cooperative Eradication Program in California

Environmental Assessment, February 2009

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I. Introduction

The gypsy moth (GM), *Lymantria dispar* L., is one of the most destructive pests of trees and shrubs in the United States. There are two types of GM, the European (North American) and the Asian. The North American GM was originally imported into Massachusetts from Europe in 1869 for silk production experiments. However, some moths were accidentally released and became established. The GM infestation spread relentlessly and now covers the entire northeastern part of the United States, from Maine south to North Carolina and west to parts of Michigan and Wisconsin. The North American GM has a host range of 250 trees and shrubs; however, they have a preference for oaks and aspen. GM hosts are located throughout most of the continental United States.

A second type of GM, known as the Asian gypsy moth (AGM), is a greater threat to American forested land due to its broader host range and its capacity to fly. The North American GM has a host range of 250 trees and shrubs. The AGM not only prefers these 250 trees and shrubs, but it also adds to it larch, poplar, alder, willow, and some evergreens. In addition, the AGM female can fly long distances (up to 20 miles) compared to the North American GM females which are unable to fly. Unlike the North American GM, there are no established populations of AGM in the United States.

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), in cooperation with the U.S. Forest Service, has established a program to help stop the spread of the current North American GM population and eradicate any new populations of North American GM, as well as any AGM populations that occur.

The GM life cycle begins in the early spring with the hatching of the first instar larvae from eggs laid the previous summer. Newly hatched larvae hang by silken threads and are caught by the wind and, thereby, disperse to other trees in the forest. Small larvae begin feeding on leaves. GM larvae go through four to six larval stages. Between stages they molt by shedding their skin. Larvae typically feed at night and rest in bark crevices during the day. In areas with high population densities, feeding may occur all day. Pupation occurs about 8 weeks after the eggs hatch. Once they emerge as adults, the female GM emits a pheromone that the males can detect through their antennae. The males locate the females and mate. After mating, the female lays eggs in a single mass usually on tree trunks.

Heavy infestations of GM can alter ecosystems and disrupt people's lives. The larval life stage can cause defoliation and can, in extreme cases, cause tree mortality. Defoliated trees are vulnerable to other insects and diseases

that may kill them. Heavy defoliation alters wildlife habitat, changes water quality, reduces property and esthetic values, and reduces the recreational value of forested areas. When present in large numbers, GM caterpillars can be a nuisance, as well as a hazard, to health and safety (USDA, 1995).

II. Purpose and Need

APHIS, in cooperation with the California Department of Food and Agriculture (CDFA), proposes to eradicate the North American GM infestation located in the Meiners Oaks area of Ojai, California. The alternatives being considered have been analyzed in detail in the 1995 "Final Environmental Impact Statement (EIS) for Gypsy Moth Management in the United States." (The EIS has been recently supplemented and was made available for public comment. This Draft Supplemental EIS can be found at http://na.fs.fed.us/pubs/detail.cfm?id=8523. A final document will be published later this year.) The findings of the 1995 EIS, as well as information used in the Draft Supplemental EIS, regarding these alternatives will be summarized and incorporated by reference into this environmental assessment (EA). The need for this proposed action is based on the potential adverse ecological and economic impacts of GM infestations on the infested and surrounding areas.

Six GMs were trapped and egg masses and pupal casings were found in a residential area in the Meiners Oaks area of Ojai, Ventura County. This area contains preferred host plants that are susceptible to defoliation by GM and which could support successful reproduction and spread of the pest. This potential population in California needs to be eradicated to avoid potential ecological and human impacts.

GM egg masses and pupae have been known to attach to nursery stock, vehicles, camping equipment, and outdoor household articles that people bring with them when they enter and leave California. Therefore, if GM were to become established and allowed to spread throughout this area, not only could it spread to other areas within California, but also to other parts of the country including the surrounding States of Oregon, Washington, Nevada, and Arizona. The associated damage, defoliation, and mortality of host plants from such an occurrence, in the absence of timely eradication action, could be devastating.

This EA is tiered to USDA's "Final EIS for Gypsy Moth Management in the United States" (USDA, 1995). APHIS proposes eradication because of the isolated nature of the infestation in Ojai, California, and the threat that a reproducing population of GM would pose to the vegetation resources of this area. This site-specific EA is designed to examine the

environmental consequences of a range of treatment options under the 1995 "Final EIS for Gypsy Moth Management in the United States" which may accomplish the program's goals. This EA is consistent with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code (U.S.C.) § 4231 et. seq.), the Council of Environmental Quality NEPA regulations (40 Code of Federal Regulations (CFR) part 1500 et. seq.), and APHIS' NEPA implementing regulations (7 CFR part 372) for the purpose of evaluating how the proposed action and alternatives described in the following sections, if implemented, may affect the quality of the human environment. This EA is being made available to the general public and comments are requested from any interested party.

III. Affected Environment

The affected environment consists of a primary treatment site where Btk will be applied, and a larger area where traps will be placed within the Meiners Oaks area of Ojai, California, in Ventura County. The Btk treatment site is a little less than 1-square mile that primarily consists of residences (see figure 1). The Ventura River is an intermittent river located to the west of the treatment site. Oak Meadow School is located on the northeastern side of the treatment site. Traps will be placed up to a 2-mile radius from the GM finds creating approximately a 4-square mile area surrounding the Btk treatment site.

The treatment site is located five miles southwest of the Los Padres National Forest. It has numerous forested patches containing many host species such as oak trees. Further, the species composition of forests in California is much different than those of the northeastern United States which are generally infested by gypsy moth. It is believed that the host range of gypsy moth will increase when introduced to new environments such as the forests that surround the treatment area.

Southern California has been subjected to devastating forest fires. Sudden Oak Death, Western Pine Beetle, and other bark beetles have been pests of concern that have caused considerable tree mortality in some forested areas of California. This has contributed to the fuel loading of these areas and made them more susceptible to wildfires

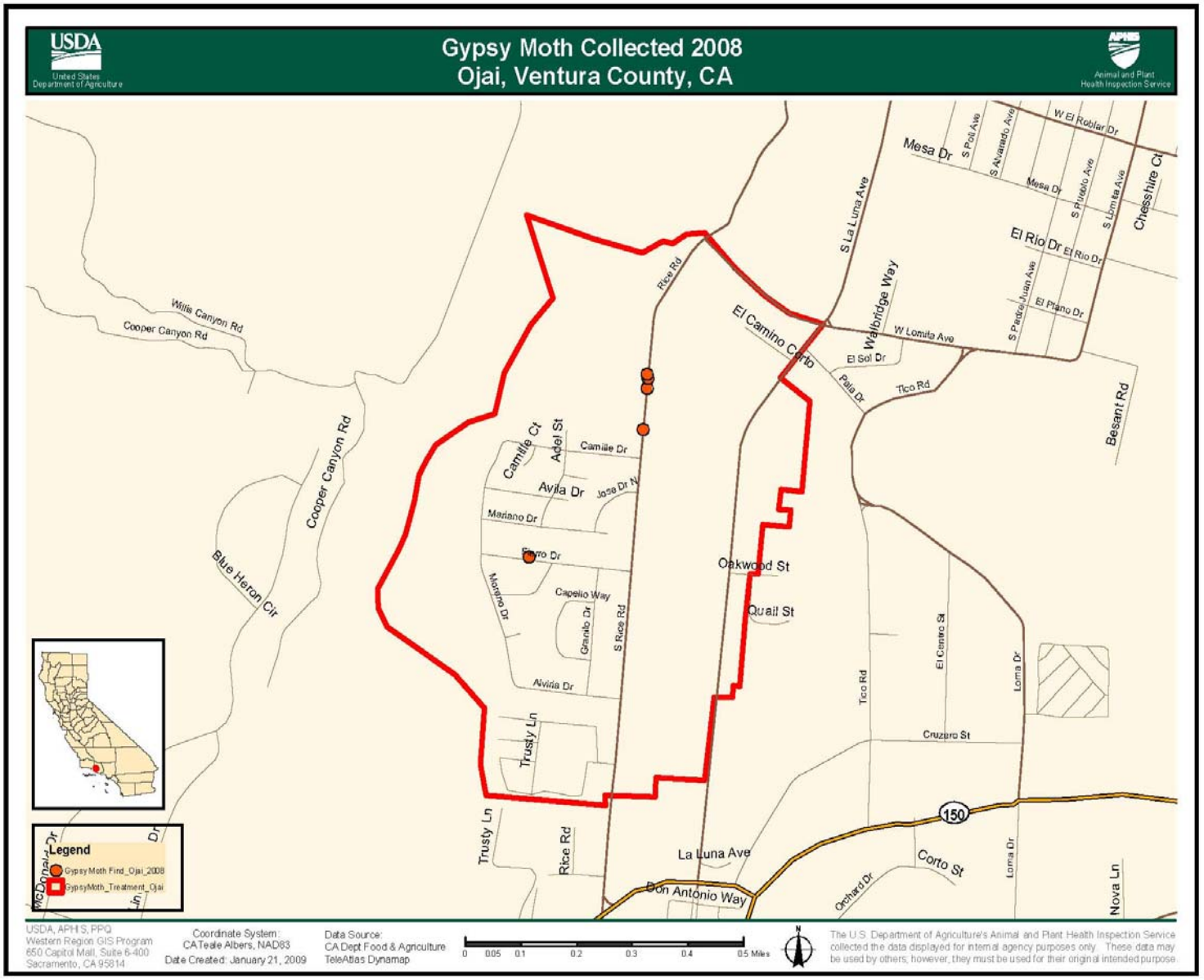

Figure 1. Ojai Btk treatment site.

IV. Alternatives

This EA is tiered to the USDA's 1995 "Final EIS for Gypsy Moth Management in the United States." The preferred alternative in the 1995 EIS is alternative 6—"Suppression, Eradication, and Slow the Spread." In this EA, APHIS proposed eradication because of the isolated nature of GM infestations in California. This site-specific EA is designed to examine the environmental consequences of a preferred treatment from the options under alternative 6 which may accomplish the program's goal.

Under alternative 6 in the 1995 EIS, there were six treatment options available—

1) *Bacillus thuringiensis var kurstaki* (Btk). This is a biological insecticide containing the bacterium Btk. The insecticide is effective primarily against caterpillars of many species of moths and butterflies.

2) Diflubenzuron (Dimilin®). This is an insect growth regulator that interferes with the growth of some immature insects.

3) Gypsy moth virus (Gypcheck). This is a nucleopolyhedrosis virus which occurs naturally and is specific to GM. Gypcheck is an insecticide product made from the GM nucleopolyhedrosis virus.

4) Mass trapping. This treatment consists of large numbers of pheromone traps used to attract the male GM and prevent them from mating with females, thereby causing a population reduction. The density of traps in this treatment option is nine or more traps per acre.

5) Mating disruption. This treatment consists of applying tiny plastic flakes or beads containing disparlure, a synthetic GM sex pheromone. The pheromone confuses male moths and, thus, prevents them from locating and mating with females.

6) Sterile insect technology. This treatment consists of an aerial release of a large number of sterile male GMs. This reduces the chance that female moths will mate with fertile males. The result is progressively fewer and fewer fertile egg masses being produced, and eventual elimination of the population.

Of the treatment options listed above, Btk and diflubenzuron have proven to be the most effective eradication tools for use with small populations of GM, such as the one in the Meiners Oaks area. This EA analyses the no action alternative and the proposed action which will treat the area using Btk in combination with trapping to ensure that the treatment is effective. Btk will be used to eradicate any larval populations of GM in the treatment site. The traps will determine whether the eradication treatment using Btk was successful. If the treatment is not successful, male GMs should be attracted to the traps.

The other treatment options were not selected due to environmental or efficacy concerns. Diflubenzuron is an insect growth regulator that has adverse impacts on a broader range of nontarget species than Btk. While Btk primarily impacts moths and butterflies, diflubenzuron can kill many other insects in addition to moths and butterfly caterpillars. Its use may adversely affect other insect populations and, therefore, it was not

selected. GM virus (Gypcheck) is very host-specific but is not widely available in the market; it is still somewhat experimental for eradication programs and, therefore, was not selected. Mass trapping has been used with some success to eradicate isolated populations, but at other times has failed It is best employed following larval pesticide treatments in small, isolated low-level populations. Mating disruption is used primarily in areas to prevent or slow the spread of GM. Sterile insect releases have been approved but have rarely, if ever, been used in eradication efforts.

A. No Action

Under the no action alternative, APHIS would not aid in the treatment of GM in this area of California. Some control measures could be taken by other Federal and non-Federal entities, including the State of California; however, these measures would not be controlled nor funded by APHIS.

B. Proposed Action

Under the proposed action alternative, Btk will be applied via ground treatments to host trees within the treatment site. A minimum of three applications of Btk will be applied with approximately a 10- to 14-day interval between each application. These applications are estimated to occur sometime in early March. However, the exact date of applications will be timed so that the applications occur during the early larval stages when GM caterpillars hatch from their eggs and are most susceptible to treatments. There will be a 200 foot application buffer for Btk treatments adjacent to all streams in the area to avoid any potential impacts to listed salmon or their critical habitat. The Btk applications are toxic to caterpillars of moths and butterflies that feed on treated vegetation within the treatment zone, thus potentially eliminating any immature GM that could be in the area.

Trapping will also be increased in the area to determine if the treatments have been successful. Trapping consists of pheromone-baited traps at a density of no less than 25 traps per square mile. Traps will be placed around the GM finds resulting in a trapping area approximately 4-square miles. These traps will attract adult male GM and will remain deployed throughout the GM flight period.

V. Environmental Impacts of the Proposed Action and Alternatives

There are potential environmental consequences from both of the alternatives being considered. Potential program impacts arise from the use of Btk and pheromone traps; however, these impacts are not expected

to be substantial. The issue of establishment of GM in the area is the main difference between the two alternatives.

A. No Action

Selecting the no action alternative would likely result in the establishment of a GM population in Ojai, California, and in surrounding areas which could lead to damage of trees relative to the level of infestation. The majority of the trees in the eradication site and in the surrounding area are susceptible to damage from GM larva. The no action alternative would allow GM to flourish in the existing area, and continue to spread into surrounding areas. With the establishment of GM, the environmental concerns discussed below would be likely to occur. The ecological effects associated with GM were examined in the GM EIS (USDA, 1995). This EA incorporates by reference the material discussed in the EIS and is summarized below.

Most of the environmental impacts associated with GM are caused by the larval stage, which is the feeding stage. In areas where GM populations are high, the trees can be defoliated leading to stress (USDA, 1995). Trees that are stressed are more susceptible to diseases and other plant pests (i.e., sudden oak death, bark beetle, and western pine beetle, all of which are currently threatening trees in some forests in California). In circumstances where high populations are sustained over several years, GM can cause tree mortality. Any increase in tree mortality, either directly from GM or indirectly from secondary pests that may attack stressed trees, would likely increase the threat of forest fires in the area.

The immediate treatment site and surrounding areas contain many host trees which would be threatened by GM defoliation. GM feeding can lead to changes in forest stand composition (USDA, 1995). Nesting sites and cover for birds and other animals could be reduced (USDA, 1995). If GM were to spread to other areas, changes in water quality and effects to aquatic organisms could occur (USDA, 1995). The loss of vegetation in this area could lead to increased erosion of soil and loss of moisture retention (USDA, 1995).

In addition to these effects, some people have been shown to be allergic to the tiny hairs on GM caterpillars. These people could suffer minor allergic reactions, primarily rashes, if GM were allowed to become established. Also, irritation to eyes and the throat are common reactions with increased GM infestations (USDA, 1995). In heavily infested areas, large numbers of caterpillars limit the enjoyment of the outdoors of some people due to GM larvae droppings and defoliation (USDA, 1995).

B. Proposed Action

The environmental effects from the proposed action are associated with the ground-based foliar application of Btk and the placement of pheromone-baited traps in the area. These environmental concerns are discussed in detail below.

1. Btk

Btk is a naturally derived soil bacterium. At the proposed application rates, it has selective insecticidal activity against certain butterflies and moths; however, sensitivity to Btk within these groups varies. Application of Btk poses negligible risk to human health and the environment (USDA, 2004). The biological pesticide, Btk, is the preferred material of choice for GM eradication programs in the United States.

a. Ecological Impact

Nontarget species (i.e., birds, mammals, amphibians, and reptiles) should not be affected by the Btk treatment in this area. Although no direct effects to birds have been seen in forestry applications of Btk, some indirect effects were noted in studies where birds relied on caterpillar larvae as a primary food source (USDA, 2004). In some cases, slight effects on reproduction (such as nesting growth rates) were seen when applications occurred over large forested areas (Norton et al., 2001); however, in other studies, no indirect effects on reproduction were noted (USDA, 2004). The treatment site is much smaller (less than a square mile, in which only known host trees will be treated with Btk) than other treatment areas (generally large forested blocks that have uniformly received aerial applications) where indirect effects were noted. Although it is possible that an individual may be negatively impacted, treatments from the proposed action would be highly unlikely to pose a risk to populations of wild mammals and birds because they forage over a much larger area and can feed on other insects in the treatment site.

Effects to nontarget terrestrial invertebrates are highly variable and dependent on test organisms. Even within the lepidopteran group which contains butterflies and moths, sensitivities can be highly variable (Peacock et al., 1998). In general, toxicity to pollinators and beneficial insects are considered low based on laboratory and field studies testing honey bees, as well as other beneficial insects (USDA, 2004). Some nontarget Lepidoptera larvae (caterpillars) present in the proposed spray area would likely be killed by the application of Btk. However, depressions in caterpillar populations are expected to be temporary due to recolonization from adjacent untreated areas and the high reproductive capacity of most insects. There are no endangered lepidopteran species or monarch larval populations that would be present in the treatment site. Some individual animals dependent on caterpillars for food may also be

affected, but no population level impacts are anticipated. Even if individuals are impacted, however, it is anticipated that these animals will likely use other sources for food or will forage outside the treatment site to the extent they are able.

Btk is not likely to affect most aquatic organisms. Multiple freshwater and saltwater fish species were tested in the laboratory to determine which level of Btk exposure would result in any effect (USDA, 2004). The levels required to produce an effect were much higher than any level that would be used in this program (USDA, 2004). There have been laboratory studies supported by field data which suggest that exposure could result in minimal effects to aquatic invertebrates (Richardson and Perrin, 1994; Kreutzweiser et al., 1992; USDA, 2004). However, studies showed that *D. magna*, mayflies, stoneflies, copepods, and mysid shrimp were not affected when exposed to concentrations well above those expected in the environment after application with Btk (USDA, 2004). Therefore, it is unlikely that fish and other aquatic organisms will be negatively impacted by the use of Btk in the proposed eradication program.

Btk is most effective against early instars of caterpillars, and progressively less effective against later instars. Therefore, Lepidoptera larvae exposed in late instars and those present at times other than during treatment applications are much less likely to be affected. Since Btk is known to only affect larval butterflies and moths, adult butterflies and moths, such as migrating monarch butterflies and resident lepidopterans are not expected to be impacted by the proposed action.

Exposure to light, higher temperature, and moisture decrease the amount of Btk in the environment. In a summary of studies regarding the environmental fate of Btk, the majority of studies indicated that insects were only affected for approximately 1 week; however, other studies have shown that while persistence of Btk in the environment may decrease rapidly, the insecticidal activity can persist up to 3 months under certain environmental conditions (USDA, 1994). The persistence of Btk in water depends on organic matter, content, and salinity (USDA, 1995). Btk has been found in aquatic field studies for 13 days and up to 4 weeks after spraying (USDA, 1995).

b. Human Impact

Humans should not be affected by the application of Btk. Irritation of the eyes, skin, and respiratory tract might be associated with exposures to Btk. Irritant effects are noted in experimental animal studies, as well as in epidemiology studies (USDA, 2004). Other, more serious signs of toxicity are not likely to occur as a result of human exposure to Btk (USDA, 2004). Workers who handle or mix the pesticide are at most risk

for minor effects; however, these effects can be minimized when Btk is handled according to label requirements. In addition, Btk is only being applied to host trees, thus limiting the potential for citizens to be affected. There will be a public meeting for citizens living in the affected area. Information will be mailed notifying citizens when and where the public meeting will take place. In addition, citizens within the treatment site will receive a hand-delivered notice of treatment dates.

While no impact is anticipated, out of an abundance of caution it is advised that individuals stay indoors during the application of Btk to ensure that any potential negative effects are limited. Available data suggests that no subgroup of individuals is more sensitive to Btk; however, sensitive individuals should be especially aware of when the applications will occur and should take measures to limit their exposure (USDA, 2004).

c. Summary

Based on the proposed ground application of Btk, the rate of application and persistence of Btk in the environment, nontarget exposure is expected to be low. There will be minimal risk to nontarget organisms due to limited exposure and low toxicity, as described above. Label requirements and other restrictions, where appropriate, will further reduce risk to sensitive organisms. Human health impacts are not anticipated. Workers routinely handling Btk could experience minor irritations; however, adherence to label requirements are expected to limit these effects.

2. Trapping

Trapping will involve disparlure-pheromone baited traps to attract male GM. Disparlure is the common name for cis-7,8-epoxy-2-methyloctadecane, which is a chemical sex pheromone that attracts male GM. The environmental impacts and human impacts are summarized below.

a. Environmental Impacts

In acute toxicity tests, disparlure was not toxic to mammals, birds, or fish (USDA, 2006). Disparlure does exhibit some toxicity to aquatic invertebrates; however, the effects are related to study design and the limited solubility of the pheromone (USDA, 2006). Studies using cladocerans revealed toxicity was related to the organisms becoming physically trapped at the water surface where undissolved pheromone was present (USDA, 2006). Risks to aquatic organisms are not expected in this program because all pheromone will be placed in sticky traps, thus eliminating any potential offsite run-off or drift. Pheromone traps do catch small numbers of nontarget organisms that accidently fly into the traps. However, because the pheromone in the trap is specific to GM and

nontarget insects will not be attracted to traps, the number of nontarget organisms affected will be very small and will have minimal impacts to the environment.

b. Human Impacts

Disparlure belongs to a group of compounds known as straight-chain lepidopteran pheromones. Acute toxicity studies with this group of compounds have shown very low mammalian toxicity through multiple exposure routes. The lack of toxicity with these types of compounds has resulted in reduced data requirements for their registration by the U.S. Environmental Protection Agency (EPA). Subchronic and chronic studies are limited for these types of chemicals; however, given the low acute toxicity and the fact that pheromones occur naturally in the environment, human health risks are expected to be minimal. The reduced data requirements introduce uncertainty into potential long-term risks; however, the lack of significant exposure to the public is low given its use in sticky traps and its limited application in the proposed program. The pheromone can be persistent on individuals who come into physical contact with disparlure and they may attract adult male moths for prolonged periods of time (up to 2 to 3 years) (USDA, 2006). No toxic effects are expected but it may be a considerable nuisance in GM-infested areas such as the eastern United States (USDA, 2006). The level of exposure required to cause the attractant effect cannot be characterized, although the likelihood of the effect is much greater for workers than for the general public. However, physical contact with disparlure from trapping is unlikely and would only occur if someone were to tamper with the trap themselves.

VI. Other Issues

A. Cumulative Impacts

This eradication program has limited impacts to lepidopterans and other nontarget species in the affected area. These limited impacts are not expected to have a cumulative impact with past, present, or future projects in this area. Based on the analysis in the environmental consequences section, there is more potential for impacting the environment with the use of Btk than from trapping. Any impacts from trapping are incidental and will be minimal, even over long periods of time. Btk primarily impacts lepidopterans and species that may rely on lepidopterans as a primary source of food. We currently know of no Federal, State, or other local projects in the proposed treatment area that will affect lepidopterans or other nontarget organisms that may be affected by this action.

In the event that the GM population is not eradicated from this area, future treatment may be required. Treatment with Btk over several years may lead to an increase in effects to lepidopteran species that may be affected, thus limiting their chances to reestablish in the treatment site. However, if future treatments are needed, a subsequent EA will be written and these risks will be evaluated further.

In the future, if egg masses are found in the area, they could be treated with Golden Pest Spray Oil™, a soybean oil product. If APHIS participates in any such treatments, the effects from these treatments will be examined in a future EA.

B. Threatened and Endangered Species

Section 7(a)(2) of the Endangered Species Act (ESA) and its implementing regulations require all Federal agencies to ensure their actions are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat. APHIS has reviewed information on the ecology of listed species and critical habitat co-occurring in the action area and has determined that the proposed action will not affect listed species or their critical habitat. APHIS has discussed the proposed action with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) to ensure that treatment activities considered in this EA do not affect listed species or their designated or proposed critical habitats. The proposed action includes a 200 foot no treatment application buffer to ensure the proposed action will not affect any listed salmonids or their critical habitat within the action area. Based on the inclusion of the application buffers, APHIS has determined that there will not be any impacts to listed species or critical habitat as a result of the proposed action and therefore no further consultation is necessary.

C. Executive Orders

Consistent with Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations," APHIS considered the potential for disproportionately high and adverse human health or environmental effects on any minority or low-income populations. The treatment site has been determined based on GM finds in the area. The treatment itself will have minimal effects on those that live in this area, and will not have disproportionate effects to any minority or low-income population.

Consistent with EO 13045, "Protection of Children from Environmental Health Risks and Safety Risks," APHIS considered the potential for

disproportionately high or adverse environmental health and safety risks to children. The children in the area are not expected to be adversely affected disproportionately more than adults due to the program actions proposed.

VII. Listing of Agencies and Persons Consulted

California Department of Food and Agriculture
Plant Health and Pest Prevention Services
1220 N Street
Sacramento, CA 95814–5607

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
Emergency and Domestic Programs
4700 River Road, Unit 134
Riverdale, MD 20737

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
650 Capital Mall Suite 6–400
Sacramento, CA 95814

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Policy and Program Development
Environmental Services
4700 River Road, Unit 149
Riverdale, MD 20737

VIII. References

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Finding of No Significant Impact
Gypsy Moth Cooperative Eradication Program in California
Environmental Assessment
February 2009

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), in cooperation with the California Department of Food and Agriculture (CDFA) propose to eradicate the North American gypsy moth infestation located in Ojai California. APHIS has prepared an environmental assessment (EA) that analyzes potential environmental consequences of eradicating gypsy moth in Ojai, California. This EA is tiered to the "Final Environmental Impact Statement for the Gypsy Moth Management in the United States: A Cooperative Approach." This EA is available at www.aphis.usda.gov/plant_health/ea or from:

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
Program Support
4700 River Road, Unit 134
Riverdale, MD 20737

or U.S. Department of Agriculture
Animal and Plant Health Inspection Service
650 Capitol Mall, Suite 6-400
Sacramento, CA 95814

The EA analyzed two alternatives consisting of (1) APHIS would not aid in the treatment of gypsy moth in Ojai, California, and (2) Treatment of gypsy moth in Ojai, California using ground applications of *Bacillus thuringiensis kurstaki* (Btk) applied with approximately a 10 to 14 day interval between applications. This will be followed by trapping when the gypsy moth are adults to ensure that the eradication was successful (proposed action). The analysis evaluated ecological and human impacts under each alternative. The proposed action was preferred because of its ability to achieve the eradication objective in a way that minimizes potential environmental consequences and provides the most opportunity for successful eradication.

Based on the proposed ground application of Btk, the rate of application and persistence of Btk in the environment, nontarget exposure is expected to be low. Label requirements will further reduce risk to sensitive organisms. Impacts to human health are not anticipated. The use of traps will not be likely to result in impacts to human health or the environment. The traps contain disparlure, a gypsy moth pheromone. Laboratory studies and field experience has demonstrated a lack of toxicity for disparlure and similar compounds.

A notification of the environmental assessment was posted in a local newspaper with a 30-day public comment period ending on Wednesday, March 4, 2009. No comments were received on the environmental assessment.

APHIS has reviewed information on the ecology of listed species and critical habitat co-occurring in the action area and has determined that the proposed action will not affect listed species or their critical habitat. The proposed action includes a 200 foot no treatment

application buffer around streams to ensure that the proposed action will not affect any listed salmonids or their critical habitat within the treatment area.

APHIS has determined that there is not a potential for disproportionately high and adverse human health or environmental effects on any minority or low-income populations consistent with the Executive Order (EO) 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations." APHIS has also determined that there would not be any disproportionately high or adverse environmental health and safety risks to children consistent with the EO 13045 "Protection of Children from Environmental Health Risks and Safety Risks."

The implementation of the preferred alternative will not significantly impact the quality of the human environment. I have considered and based my finding of no significant impact on the analysis of the program's characteristics and its anticipated environmental consequences, as analyzed in the EA. An environmental impact statement (EIS) must be prepared if implementation of the proposed action may significantly affect the quality of the human environment. I have determined that there would be no significant impact to the human environment from the implementation of the preferred alternative and, therefore, no EIS needs to be prepared.

Helene R. Wright

Helene Wright
Plant Protection and Quarantine
Animal and Plant Health Inspection Service

March 6, 2009
Date