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APHIS

Oriental Fruit Fly Cooperative Eradication Program

North Highlands Region, Sacramento and Placer Counties, California

Environmental Assessment, July 2010

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Appendix A. Detection Site and Program Area for Oriental Fruit Fly—North Highlands Region, California

I. Need for the Proposal

The oriental fruit fly, *Bactrocera dorsalis* (Hendel) (synonym = *Dacus dorsalis* Hendel), is a destructive agricultural pest in many parts of the world. It has a long history of being a serious pest of tropical and subtropical fruits in Southwest Asia and most of the Pacific Islands. Following introduction into the Hawaiian Islands in the 1940s, this fly multiplied rapidly and currently is known to infest more than 125 different host fruits in the State of Hawaii. Worldwide, the oriental fruit fly (OFF) has been recorded infesting more than 250 kinds of fruit and vegetables including citrus, guava, mango, papaya, avocado, banana, loquat, tomato, surinam cherry, rose-apple, passion fruit, persimmon, pineapple, peach, pear, apricot, fig, and coffee berries.

OFF has been identified and eradicated numerous times in the continental United States since it was first found in California in 1960. Reintroduction has occurred due to infected fruits and vegetables that are brought across the border without inspection. Because of the species' rapid population growth and potential for damage, a prompt response is desired to contain and eradicate any infestation found in the conterminous United States.

On June 21, 2010, a female mated adult OFF was collected in a McPhail trap placed on a loquat tree within the community of North Highlands, Sacramento County, California (CDFA, 2010a). Confirmation of this finding triggered Federal involvement in response to this outbreak. The region surrounding the infestation is a mixture of residential neighborhoods, small businesses, schools, and developed recreational property.

Although OFF is not known to be established in California, its reintroduction occurs on an almost annual basis. The last OFF infestation in California occurred in 2009 approximately 422 miles away from North Highlands, in the La Verne region of Los Angeles County. Many host plant species are grown in Sacramento County and adjacent counties, which increases the potential environmental impact of the North Highland detection. OFF infestations represent a major threat to the agriculture and environment of California and other U.S. mainland States. The U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) and the California Department of Food and Agriculture (CDFA) have proposed a cooperative program to eradicate the OFF infestation and prevent the spread of OFF to noninfested regions of the United States.

APHIS' authority for cooperation in the program is based upon the Plant Protection Act (Title 4 of the Agricultural Risk Protection Act of 2000),

which authorizes the Secretary of Agriculture to carry out operations to eradicate insect pests, and to use emergency measures to prevent the dissemination of plant pests new to, or not widely distributed throughout, the United States.

Since 1984, APHIS has cooperated with State departments of agriculture on a number of successful OFF eradication programs. The most recent example is the Oriental Fruit Fly Cooperative Eradication Program conducted with CDFA in La Verne, Los Angeles County, California (USDA–APHIS, 2009; CDFA, 2010b).

This site-specific environmental assessment (EA) analyzes the environmental consequences of alternatives which have been considered for OFF eradication, and considers, from a site-specific perspective, environmental issues relevant to this particular program. Alternative methods for OFF eradication have been discussed and analyzed comprehensively within the Fruit Fly Cooperative Control Program, Final Environmental Impact Statement—2001 (FF EIS) which is incorporated by reference and summarized within this EA. The eradication measures being considered for this program have been discussed and analyzed comprehensively within the fruit fly chemical risk assessments (USDA–APHIS, 1998a and 1998b) and risk assessments for spinosad (USDA–APHIS, 1999a, 1999b, and 2003). Those documents are also incorporated by reference and summarized within this EA.

II. Alternatives

Alternatives considered for this program include (1) no action, and (2) eradication using an integrated pest management (IPM) approach. Component techniques of eradication include the use of chemical pesticides to facilitate the timely elimination of the current OFF infestation.

A. No Action

The no action alternative would involve no Federal action to eradicate OFF or restrict its expansion from the currently infested site. In the absence of a Federal effort, regulatory and eradication activity would be left to State and local government, grower groups, and individuals. Expansion of the infestation would be influenced by any pest control actions exerted over it, by the proximity of host plants, and by climatic conditions. (For details about the California State program for OFF, please visit the CDFA Web site at http://www.cdfa.ca.gov/plhpps/pdep/treatment/oriental_ff.html.)

It should be noted that "no treatment" might be the only choice with respect to some sensitive locations where federally listed threatened and endangered species or critical habitats occur; in such cases, lack of action could result in a continuing and expanding infestation. Under the no action alternative, APHIS would continue cooperative practices to control outbreaks of OFF in California, including support of the CDFA detection trapping program. An expansion of the infestation would likely result in substantial economic losses to growers in the United States and losses of U.S. export markets.

B. Eradication (Preferred Alternative)

Eradication is the preferred alternative. It has been determined that no non-pesticidal options available will effectively eradicate OFF (CDFA, 2010c). APHIS' preferred alternative for the North Highlands OFF program is eradication using an integrated pest management (IPM) approach, as has been used before in successfully managing California outbreaks of OFF. Multiple options for eradication of OFF are analyzed in the FF EIS (USDA–APHIS, 2001). Options considered for the preferred alternative include (1) male annihilation using bait stations, (2) supplemental spot spraying of chemicals, (3) regulatory treatments and control, (4) mass trapping, and (5) host removal. Successful eradication of the 2009 La Verne OFF infestation using such an IPM strategy was declared as of April 26, 2010; the La Verne quarantine was removed (CDFA, 2010b). Monitoring for OFF continues throughout all counties of California.

The program area for the current infestation includes those portions of Sacramento County and adjacent Placer County which fall within an 81-square-mile boundary (9 miles x 9 miles) centered on the detection site.[1] The boundary will be adjusted, as necessary, to include other properties on which an adult fly has been trapped or on which another OFF life stage is found to be present. Delimitation traps are placed throughout the program area to delimit the infestation and to monitor post-treatment fly populations. These traps are serviced on a regular schedule for a period equal to three OFF generations beyond the date of the last fly find (CDFA, 2010c).

Male annihilation technique is the standard treatment technique for OFF. The OFF male annihilation technique is conducted in a 1.5-mile radius from each fly detection site for a minimum of nine square miles. Approximately 600 small, gel-like bait stations per square mile are applied to utility poles and street trees at a height of 6 to 8 feet. The technique is

[1] For the purposes of this document, "program area" refers to the eradication zone within the quarantine boundary – this includes both eradication treatment nd regulatory treatment areas.

repeated every 2 weeks for a minimum of four applications, or one to two life cycles, depending on the severity of the infestation. These bait stations contain a male attractant (methyl eugenol) that is mixed with a small amount of the pesticide naled. The bait stations attract male OFF looking for an opportunity to breed. The females go unmated and no offspring are produced, effectively causing eradication of the population (CDFA, 2010c, 2008).

Because a mated female OFF has been detected, a foliar bait ground treatment will also be applied. For such treatment, host trees and plants within a 200-meter radius of the find site are treated with a hand-held hose that consists of an organic formulation of the pesticide spinosad and protein bait (CDFA, 2010c). If larvae, more mated females, or numerous males are detected, additional foliar bait ground treatments may be required to mitigate the spread of OFF (CDFA, 2008).

Larval surveys will be conducted up to 200 meters around any property where OFF are trapped, in order to determine if other life stages are present. The detection of larvae will result in the removal of fruit from 100 meters around all known infested and adjacent properties (CDFA, 2010c).

Also, because of the mated female OFF detection, a quarantine boundary will be established to ensure that any host material that leaves the program area is free of OFF. Host material may be treated by cold treatment, vapor heat treatment, irradiation, or fumigation with methyl bromide (USDA–APHIS, 2001, 1989).

III. Potential Environmental Consequences

This EA analyzes the potential environmental consequences of alternatives that have been considered for OFF eradication, and considers, from a site-specific perspective, environmental issues relevant to this particular program. The preferred alternative, eradication, would involve an IPM approach that may use any or a combination of the following: (1) no action, (2) eradication chemical applications (protein bait spray and/or foliar spray spot treatment), (3) mass trapping for monitoring and surveillance purposes, and (4) regulatory quarantine treatment and movement control of host materials. The capability of an adult OFF to fly distances of 30 miles makes it possible for commercial host-plant growing and production regions outside the program area to become infested. Therefore, regulatory treatment methods used for movement of commercial produce are included as program options in the event that the program area should expand to include nurseries, groves, or orchards.

Alternatives for OFF eradication have been discussed and analyzed comprehensively within the FF EIS (USDA–APHIS, 2001). The attractant used in the OFF male annihilation technique is very specific for this group of flies, so much so that other insects (such as bees or butterflies) will not be harmed because they are not attracted to the lure. Review of the treatment protocols by CDFA and USDA has determined that male annihilation technique does not cause any measurable adverse environmental or health risks (CDFA, 2010d). Therefore, the discussion in this section will focus on the other eradication measures of the preferred alternative.

The site-specific characteristics of the North Highland program area were considered with respect to the program's potential to affect (a) human health, (b) nontarget species (including threatened and endangered species), and (c) environmental quality. In addition, potentially sensitive sites have been identified, considered, and accommodated through special selection of eradication methods and use of specific mitigation measures. Further analysis will be required regarding any expansion of the current program area boundaries.

North Highlands, California, is an outlying suburban community about 10 miles northeast of the city of Sacramento, California. It is located in the broad Sacramento Valley and is bordered by the Sierra Nevada Mountains to the east, the California coastal ranges to the west, and the Klamath Mountains to the north. North Highlands is a U.S. census-designated community with an estimated population fewer than 50,000 (U.S. Census Bureau, 2010). The region has an elevation between 92 and 100 feet above sea level, an average annual rainfall of over 19 inches, and an average temperature range from 56 to 87 °F (temperature extremes during the first 6 months of 2010 have ranged from 66 to 103 °F). The community lies due east of the former McClellan Air Force Base, now a civilian business center and airport known as McClellan Business Park (CHL, 2010; City-Data, 2010; CityInfo, 2010).

The North Highlands OFF program area at present involves primarily residential neighborhoods, small businesses, schools, and developed recreational properties. This area covers approximately 79 square miles of land, most of which lies in Sacramento County with a small overlap into adjacent Placer County. (See figure 1 showing the currently affected counties and appendix A for a more detailed map of the program area.) According to established OFF program protocol, treatment placement is determined by encompassing an approximate radius of 1.5 miles around each property on which an adult fly is trapped, or on which another life stage of OFF is present. A total of 12.3 square miles thus encompassed will be treated for the current OFF infestation.

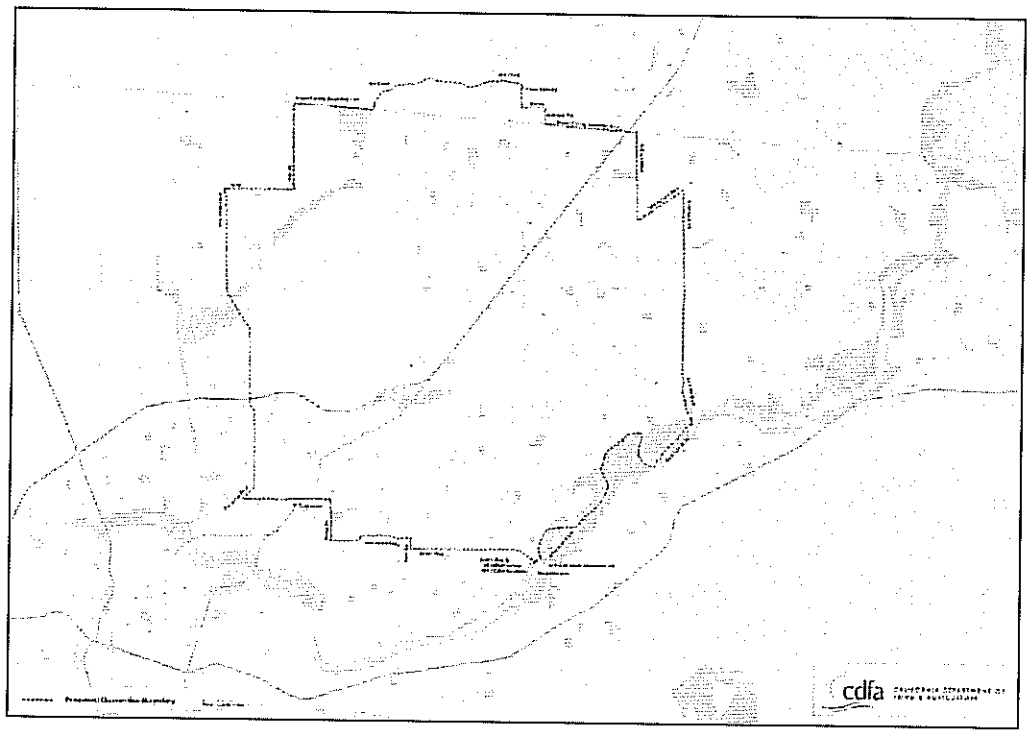

Figure 1. Portions of Sacramento and Placer Counties within the program area. (Source: CDFA)

For the mass trapping portion of this program, three types of traps—Jackson, yellow panel, and Multilure—are placed throughout the 81-square-mile program area surrounding the detection site in order to delimit the infestation and to determine the efficacy of treatments. All monitoring traps are serviced for a period equal to three OFF life cycles beyond the date of the last fly detection (CDFA, 2010c). Treatments will be repeated at 6- to 14-day intervals for one OFF life cycle. The eradication program will continue for three life cycles past the date of the last OFF trapped (CDFA, 2010c). The OFF goes through a four-stage life cycle—egg, larva, pupa, and adult. Breeding is continuous, with several annual generations. Adults live an average of 90 days (USDA–APHIS, 2010).

North Highlands is part of the region outside the city of Sacramento that is located in numerous watersheds including those of the Cosumnes, lower Mokelumne, and Yuba Rivers, as well as the Sacramento-San Joaquin Delta. The nearby city of Citrus Heights (about 5 miles to the northeast of North Highlands) obtains most of its water from local rainfall and snowfall in the Sierra Mountains. The region in and around the North Highlands community obtains its irrigation and drinking water from California Central Valley Project reservoirs, aquifers, and local streams and reservoirs (WEF, 2006). Urban and agricultural runoff may flow directly into local waters, picking up trash, dirt, chemicals, and other contaminants along the way. The current eradication program calls for

ground-based spot spraying of OFF host plants in residential districts in and around North Highlands; this method of application is designed to minimize the potential for introduction of program chemicals to local water resources.

A. Human Health

The principal concerns for human health identified in the FF EIS are related to potential program uses of the chemical pesticides: naled lure (male annihilation technique trap formulation), spinosad bait (spray formulation), and methyl bromide (a fumigant) (USDA–APHIS, 2001). Three major factors influence the human health risk associated with pesticide use—their exposure to humans, their toxicity to humans, and the fate of the pesticides in the environment. Each of the program pesticides is known to be toxic to humans; however, exposure to the pesticides is likely to be minimal owing to program use patterns.

The North Highlands eradication program will initially employ naled lure trapping and ground-based spot applications of spinosad bait. Potential exposure to naled lure is unlikely. Potential exposure is low for the spinosad bait to be used in this eradication program because treatments are limited to ground-based applications to plants at the find site and on adjacent properties. Commercial applications, should they become necessary, will be applied to properties owned by commercial growers and producers where exposure to the general public is unlikely. The analyses and data of the FF EIS and human health risk assessments indicate that exposures to pesticide from normal program operations are not expected to result in substantial adverse human health effects. (Refer to the FF EIS (USDA–APHIS, 2001) and the human health risk assessments (USDA–APHIS, 1999a and 1998a) for more detailed information relative to human health risk.) No adverse impacts to human health are expected to occur from these actions, if executed properly and in accordance with label requirements.

Another mitigation measure that will further minimize exposure of humans to program pesticides is the requirement for public notification. The public will be kept informed of the OFF eradication program via written notices and news releases to the media. Property owners will be notified at least 24 hours prior to insecticidal treatment or physical removal of potentially infested fruit from their property, and provided with guidelines for post-treatment precautions and harvest protocols.

In general, a well-coordinated eradication program using IPM technologies results in the least usage of chemical pesticides overall, and the least potential to adversely affect human health. The no action alternative would not eliminate OFF as readily or as effectively as the

eradication alternative. Over a protracted time period, there would likely be broader, more widespread use of pesticides by homeowners and commercial growers, with correspondingly greater potential for adverse impacts to human health.

B. Other Considerations

Potential environmental impacts of implementing the preferred alternative have been considered regarding historical and archeological sites in the North Highlands region. No adverse effects to such sites are anticipated as a result of the program pesticide applications.

Some Executive orders, such as Executive Order 13045, "Protection of Children From Environmental Health Risks and Safety Risks, and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," as well as departmental and/or agency directives, call for special environmental reviews in certain circumstances. No circumstance that would trigger the need for special environmental reviews is involved in implementing the preferred alternative considered in this document. The program does not pose any disproportionate adverse effects to children, minority populations, or low-income populations over those effects to the general population.

Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," was issued to ensure that there would be "meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications...." No tribal lands are located within the current program area and no tribal population is expected to be affected by the program activities (see figure 2). Should future detections of OFF warrant expansion of the current program area into tribal lands, program officials will initiate consultation with the governing tribal authorities before undertaking further action (CDFA, 2010c).

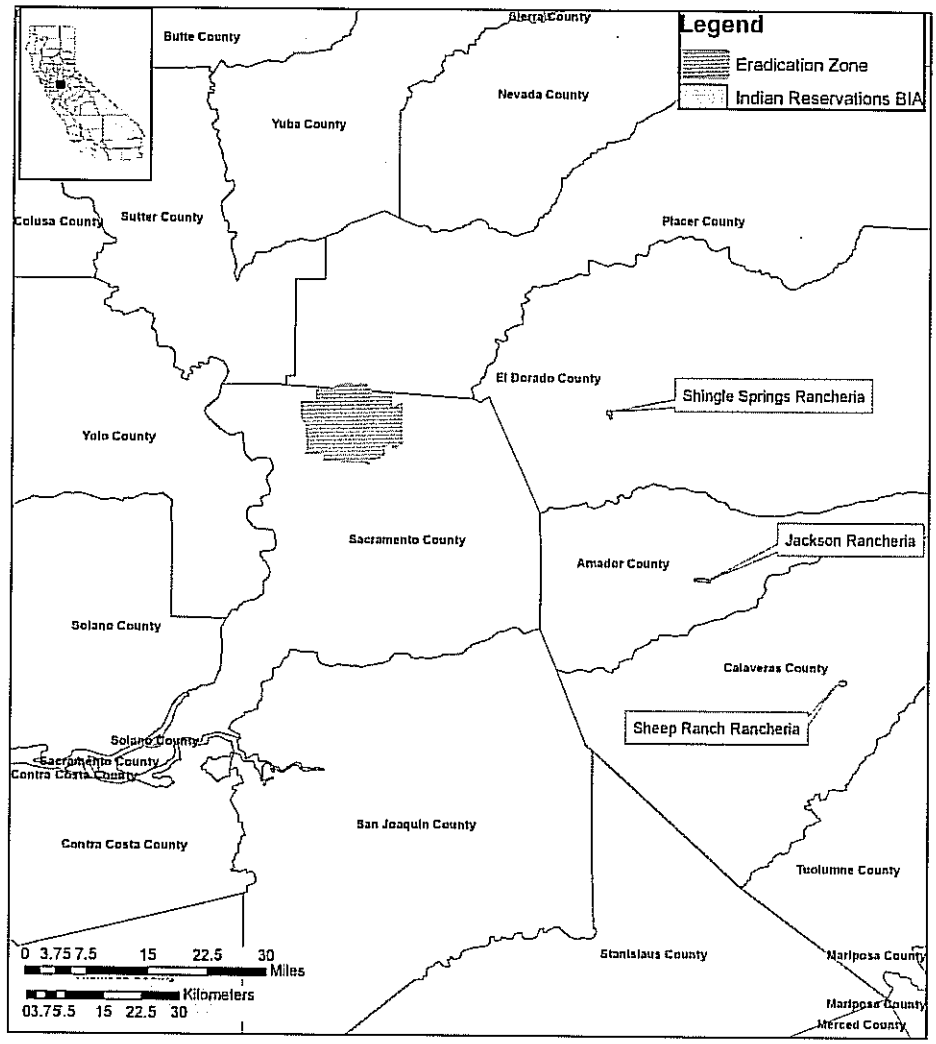

Figure 2. Federal tribal lands nearest to North Highlands, California. (Source: USDA–APHIS)

C. Nontarget Species

The principal concerns for nontarget species, including threatened and endangered species, also relate to potential harm from the program use of pesticides. Paralleling human health risk, the risk to nontarget species is related to the pesticides' exposure to nontarget species, toxicity to the nontarget species, and fate in the environment. All of the program pesticides are highly toxic to invertebrates; however, the likelihood of exposure (and thus, impact) varies a great deal with the use pattern.

A well-coordinated eradication program using IPM technologies (the preferred alternative) generally results in the least use of chemical pesticides overall, with minimal adverse impacts to nontarget species. The no action alternative is less effective at eliminating OFF, and is likely to result in broader and more widespread use of pesticides by homeowners

and commercial growers, with correspondingly greater potential for adverse impact to the human environment.

Eradication activities under the preferred alternative include the male annihilation technique and ground-based, foliar applications of spinosad bait to host plants, with fruit stripping as indicated by larval finds. The male annihilation technique lure used as an OFF male attractant is specific for this group of flies and will not harm other insects, such as bees or butterflies. The spinosad treatments target OFF host plants in a manner that minimizes potential exposure and associated risks to nontarget species. The spinosad bait applications attract only a small number of invertebrate species other than OFF. Fruit stripping will be limited to plants at larval find sites and on adjacent properties, and is expected to have no adverse effect on nontarget species. (Refer to the FF EIS (USDA–APHIS, 2001) and its nontarget risk assessments (USDA–APHIS, 2003, 1999b, and 1998b) for more information on risks to all classes of nontarget species.)

The North Highlands program area was considered with respect to special characteristics that could influence the implementation of program operations. The affected region consists primarily of developed residential and industrial space; program actions undertaken in these localities are expected to have negligible adverse affect on nontarget species and habitats.

In particular, APHIS considered potential program effects on federally listed species and critical habitat. Section 7 of the Endangered Species Act and its implementing regulations govern consultation with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service to ensure that agency 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 reviewed the program area and proposed treatment activities for the potential co-occurrence of federally listed species and critical habitat to determine if any proposed program treatments may affect listed species or critical habitat. APHIS examined the program area and adjacent regions for the presence of listed species or critical habitat and identified the co-occurrence of critical habitat for the Central Valley steelhead in Dry Creek in the northwestern portion of the program area and in the American River along the southeastern boundary of the program area. APHIS has determined that the program treatments will not affect Central Valley steelhead or its critical habitat. All pesticide treatments will be in established residential neighborhoods, commercial groves, or industrial districts (CDFA, 2010c). All program treatments are restricted to ground-based applications of spinosad and male annihilation technique in

residential neighborhoods, and no pesticide applications may occur in riparian habitat, on native vegetation or within 100 feet of any water body in the program area. In addition, critical habitat for the Valley elderberry longhorn beetle (VELB) occurs adjacent to the southeastern border of the program area along the American River. Again, all program treatments will occur in residential neighborhoods, and no pesticide applications will be made to native vegetation or within 100 feet of any water body. Therefore, no impacts are expected to the VELB or any other federally listed species as a result of program treatments. Should the program area expand or further outbreaks be detected that are not considered herein, APHIS, in cooperation with CDFA, will consult with the appropriate consulting agency, as necessary. A complete administrative record of this review is available upon request.

D. Environmental Quality

The principal environmental quality concerns are for the protection of air quality, water quality, and the minimization of the potential for environmental contamination. Pesticide use is the primary concern of the public and the program in regard to preserving environmental quality. Although program pesticide use is limited, especially in comparison to other agricultural pesticide use, the anticipated actions would result in a controlled release of chemicals into the environment. The fate of those chemicals varies with respect to the environmental component (air, water, or other substrate) and its characteristics (temperature, pH, dilution, etc.).

- Naled is practically nonpersistent in the environment, with reported field half-lives of less than 1 day. It rapidly degrades in the presence of sunlight. Naled is not strongly bound to soils. It is rapidly broken down if wet (a reported half-life of about 2 days), and it is moderately volatile. Soil microorganisms break down most of the naled in the soil. It, therefore, should not present a hazard to ground water. The half-life of naled on foliage ranges from 2.3 to 2.5 days. Plants reductively eliminate bromine from naled to form dichlorvos, which may evaporate or be further metabolized (Extoxnet, 1996).

- Spinosad adsorbs strongly to soil particles and is unlikely to leach to great depths. Dissipation half-lives for spinosad in the field may last 0.3 to 0.5 day. It is photodegraded quickly on soil exposed to sunlight, but the degradation rate is decreased at longer exposure times. Spinosad is quickly metabolized by soil microorganisms under aerobic conditions, and has a half-life of 9.4 to 17.3 days. Because natural water bodies and rain are generally not of basic pH, spinosad will not hydrolyze in them or on moist plant surfaces. Aqueous photolysis is rapid in natural sunlight (half-life of less than 1.0 to 1.6 days), and is the primary route of degradation in aquatic systems

exposed to sunlight. Under anaerobic conditions, the degradation rate is slower, between 161 and 250 days. Spinosad has a half-life of 2.0 to 5.3 days on foliar surfaces. After initial photodegradation, residues are available for metabolism by plant biochemical processes. Effects from residues of individual treatments are no longer detectable in environmental substrates within a few weeks of application (Kollman, 2003).

Methyl bromide fumigation will not be used as an eradication treatment but may be employed as a regulatory treatment. Methyl bromide has a half-life in the environment of 3 to 7 days; however, the small quantities that would be used disperse immediately when fumigation chambers are vented. (Refer to the FF EIS (USDA–APHIS, 2001) for a more detailed consideration of the pesticides' environmental fates.)

E. Cumulative Effects

APHIS has considered the potential of program actions to contribute to cumulative impacts on the human environment. APHIS has considered implementation of the preferred alternative in conjunction with other pest insect eradication and quarantine projects in California. As of July 6, 2010, there is one (1) program area designated for OFF in Sacramento and Placer Counties; there are no other such designations in the State.

The treatments for potentially overlapping pest management programs in California target different insects and do not affect the same nontarget organisms. Additional programs in place at the time of preparation of this EA have been designed to target the following—

- Asian citrus psyllid outbreaks in six California counties (not Sacramento County or Placer County);
- European grapevine moth in six California counties (not Sacramento County or Placer County);
- gypsy moth in 1 California county (not Sacramento County or Placer County);
- karnal bunt in 1 California county (not Sacramento County or Placer County);
- light brown apple moth outbreaks in 18 California counties (not Sacramento County or Placer County); and
- Mediterranean fruit fly in 2 California counties (not Sacramento County or Placer County).

No significant cumulative impacts are anticipated as a consequence of implementing the preferred alternative or its component treatment measures. There have been no residual impacts from previous Federal and non-Federal actions targeting fruit fly infestations in the North

Highlands region, and there are no reasonably foreseeable future actions that could result in incremental increases in environmental effects. Based on APHIS' review of the context and intensity of the existing, ongoing, and potential future treatments, there will be no cumulative impacts to the human environment resulting from this program.

As discussed previously, additional treatments and actions may be implemented in this program, including quarantines and regulatory treatments. The anticipated use of these treatments is considered to pose a minimal risk to the human environment, as determined in the FF EIS (USDA–APHIS, 2001) and nontarget species and human health risk assessments (USDA–APHIS, 2003, 1999a, 1999b, 1998a, and 1998b).

IV. Listing of Agencies Consulted

California Department of Food and Agriculture
Plant Health and Pest Prevention Services
Pest Detection/Emergency Projects
1220 N Street
Sacramento, CA 95814

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
Fruit Fly Exclusion and Detection Programs
4700 River Road, Unit 7
Riverdale, MD 20737–1234

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

U.S. Department of the Interior
Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

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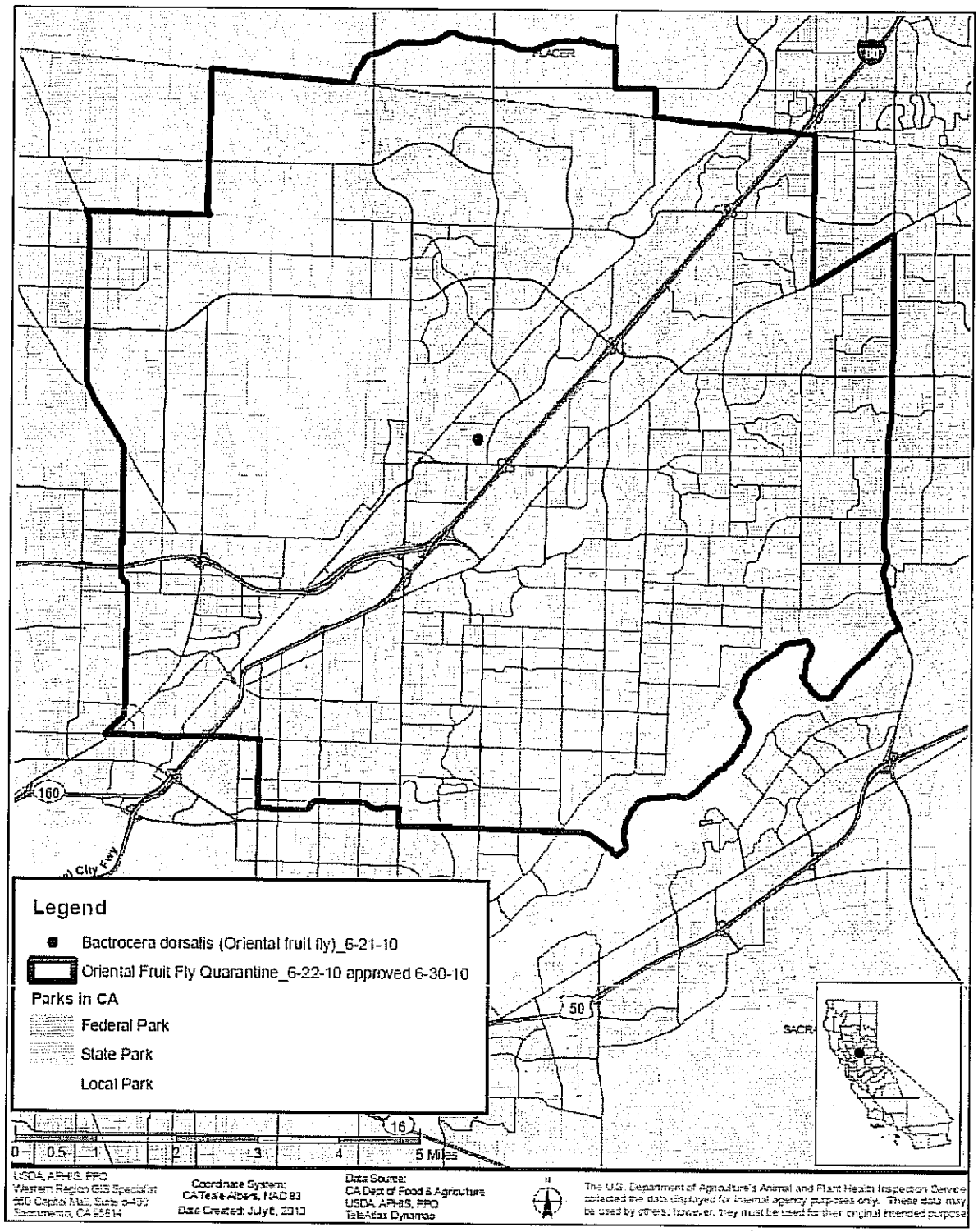
WEF—See Water Education Foundation

Appendix A. Detection Site and Program Area for Oriental Fruit Fly—North Highlands Region, California



Source: USDA–APHIS

Finding of No Significant Impact
for
Oriental Fruit Fly Cooperative Eradication Program
North Highlands Region, Sacramento and Placer Counties, California
Environmental Assessment
July 2010

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) has prepared an environmental assessment (EA) that analyzes alternatives for control of the Oriental fruit fly (OFF), *Ceratitis capitata* (Wiedemann), an exotic agricultural pest that has been detected in the North Highlands region, in Sacramento and Placer Counties, California. The EA, incorporated by reference in this document, is available from—

USDA, APHIS, PPQ
State Plant Health Director
650 Capital Mall, Suite 6-400
Sacramento, CA 95814

or

USDA, APHIS, PPQ
Fruit Fly Exclusion and Detection Program
4700 River Road, Unit 7
Riverdale, MD 20737

The EA for this program analyzed alternatives of (1) no action and (2) eradication for a section of the North Highlands community that currently includes Sacramento and Placer Counties. Each of the alternatives was determined to have potential environmental consequences. APHIS selected eradication using an integrated pest management approach for the program because of its capability to achieve eradication in a way that also reduces the magnitude of those potential environmental consequences.

APHIS has reviewed the program area and proposed program treatment activities and determined the proposed action will not affect any listed species or critical habitat. All program treatments are restricted to residential neighborhoods, commercial groves, and industrial districts. No pesticide treatments will occur within 100 feet of any water body or to any native vegetation, riparian habitat, or other sites identified as environmentally sensitive, including critical habitat for listed species. Should the program area expand, or a new species or critical habitat be listed, APHIS will revisit this determination and consult with the appropriate consulting agency, as necessary. A full administrative record for this consultation is available upon request.

I find that implementation of the proposed program will not significantly impact the quality of the human environment. I have considered and based my finding of no significant impact on the quantitative and qualitative risk assessments of the program pesticides, and on my review of the program's operational characteristics. Further, I find the preferred alternative to be consistent with the principles of environmental justice as expressed in Executive Order12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," and the protection of children, as expressed in Executive Order 13045, "Protection of Children From Environmental Health Risks and Safety Risks." The program does not pose any disproportionate adverse effects to children, minority populations, or low-income populations over those effects to the general population. Lastly, because I have not found evidence of significant environmental impacts associated with this program, I further find that an environmental impact statement does not need to be prepared and that the program may proceed.

Helene R. Wright

Helene Wright
State Plant Health Director, California
Animal and Plant Health Inspection Service
Sacramento, CA

7/12/10
Date