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Inspection
Service



Mediterranean Fruit Fly Cooperative Eradication Program

**Pompano Beach, Broward
County, Florida**

**Environmental Assessment,
February 2011**

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Florida**

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**Appendix A. Mediterranean Fruit Fly in Pompano Beach,
Broward County, Florida—February 2011**

I. Need for the Proposal

The Mediterranean fruit fly or Medfly, *Ceratitidis capitata* (Wiedemann), is a major pest of agriculture throughout many parts of the world. Because of its wide host range (over 300 species of fruits and vegetables) and its potential for damage, the Medfly represents a serious threat to U.S. agriculture. Although it has been introduced intermittently to the U.S. mainland since its first introduction in 1929, successful eradication programs have prevented it from becoming a permanent pest in the conterminous United States.

An establishment of Medfly would be disastrous to agricultural production in Florida and the United States. Although established on the Hawaiian Islands, the unchecked presence of Medfly on the U.S. mainland would result in widespread destruction of crops, such as apricot, avocado, grapefruit, nectarine, orange, peach, and cherry. Commercial crops, as well as home production of host fruits, would suffer if Medfly were allowed to become established. Fruit that has been attacked by Medfly is unfit to eat because the Medfly larvae tunnel through the fleshy part of the fruit, damaging the fruit and subjecting it to decay from bacteria and fungi.

Florida has pursued an aggressive and ongoing Medfly detection and control program since the first introduction of Medfly to the State in 1929. No U.S. Federal Government participation in the program occurred from 1998 until the 2010 Medfly outbreak in Boca Raton (USDA–APHIS, 2010). The State’s last reported detection of Medfly in Pompano Beach occurred in 2007 (Dean, 2010). On January 31, 2011, two mature male adult Medflies were detected in a Jackson trap baited with trimedlure during a routine survey in a residential neighborhood of Pompano Beach (USDA–APHIS, 2011a). The findings have triggered Federal involvement in response to this outbreak. These detections of Medfly have determined the zones proposed for eradication (treatment application) and regulatory (quarantine) action (see map in appendix A). The area in and surrounding the infestation is a mixture of developed urban and residential districts, highways and waterways, managed Atlantic shoreline and parkland. The closest commercial agricultural production is approximately 30 miles from the detection site (USDA–APHIS, 2011a).

Although Medfly is not known to be established in Florida, many host plant species are grown in Broward County, which increases the potential environmental impact of the Pompano Beach detections. The two flies were trapped in an avocado tree in a residential property (USDA–APHIS, 2011a). This Medfly infestation is the first detected in Florida since the last Medfly program quarantine was lifted (FDACS, 2010a), and represents a major threat to the agriculture and environment of Florida and other U.S. mainland States. The U.S. Department of Agriculture’s

(USDA) Animal and Plant Health Inspection Service (APHIS) and the Florida Department of Agriculture and Consumer Services (FDACS) are proposing a cooperative program to eradicate the Medfly infestation and prevent the spread of Medfly to noninfested areas 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 the California, Texas, and Florida State Departments of Agriculture on a number of successful Medfly eradication programs. Based in Sarasota, Florida, the sterile insect technique (SIT) and Mediterranean Fruit Fly Preventive Release Program is a cooperative effort between USDA–APHIS and the FDACS Division of Plant Industry (FDACS, 2009). In October 2009 Florida authorities undertook a proactive expansion of their SIT releases to include 16 square miles of Broward County; the release area was expanded in April 2010 to 72 square miles over the regions of Fort Lauderdale and Boca Raton (to the north and south of, but not including, Pompano Beach)(USDA–APHIS, 2011b). International airports and deep-water seaports give Broward County its “high risk” status (FDACS, 2009). The SIT control method is employed based on the success of the sterile fly release program over the past decade in Miami-Dade and Hillsborough Counties (FDACS, 2010a). Since 2010, sterile Medflies are released weekly in these high risk Florida counties:

- over 72 square miles of Broward,
- over 300 square miles of Hillsborough,
- over 160 square miles of Sarasota,
- over 140 square miles of Miami-Dade. and
- over 95 square miles of Palm Beach (FDACS, 2009b and 2010b).

This site-specific environmental assessment (EA) analyzes the environmental consequences of alternatives which have been considered for Medfly eradication, and considers, from a site-specific perspective, environmental issues relevant to this particular program. Alternatives for Medfly 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, 1999b, 1999c,

and 2003a). Those documents are also incorporated by reference and summarized within this EA.

II. Alternatives

Alternatives considered for this program include (1) no action, (2) quarantine and commodity certification, and (3) 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 Medfly infestation.

A. No Action

The no action alternative would result in no Federal effort being taken to eradicate the Medfly or restrict its expansion from the infested area in the city of Pompano Beach, Broward County, Florida. In the absence of a Federal effort, quarantine and eradication would be left to State 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. “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. This alternative would continue the agency exclusionary practices to preclude outbreaks of Medfly in high risk areas, including the ongoing use of SIT as part of the preventive release 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. Quarantine and Commodity Certification

This alternative combines a Federal quarantine with commodity treatment and certification, as stipulated under Title 7 of the Code of Federal Regulations (CFR) part 301.32. Regulated commodities harvested within the quarantine area would be restricted to movement within that area unless treated with prescribed applications and certified for movement outside the area. For a large infestation, intensive quarantine enforcement activities could be necessary including safeguarding of local fruit stands, mandatory baggage inspection at airports, and judicious use of road patrols and roadblocks. The quarantine actions of this alternative would result in a reduction of human-mediated movement of Medfly in host plant materials to areas outside the quarantined area; however, the infestation could remain established within the quarantine boundaries. Any Medfly eradication efforts would be managed by, and wholly under the control of, FDACS.

Interstate movement of regulated commodities would require issuance of a certificate, or limited permit, contingent upon commodity treatment or the grower or shipper complying with specific conditions designed to minimize pest risk and prevent the spread of the Medfly. Eradication methods that may be used in this alternative include (1) regulatory chemicals, (2) cold treatment, (3) vapor heat treatment, and (4) irradiation treatment. Regulatory chemical treatments may include a chemical soil drench, fumigation with methyl bromide, and bait spray with a mixture of protein hydrolysate bait and either spinosad or malathion, whose potential environmental impacts have been evaluated in the FF EIS (USDA–APHIS, 2001). Cold treatment, vapor heat treatment, or irradiation treatment of certain produce, as a requirement for certification and shipping, must be made in facilities that are inspected and approved by APHIS.

C. Eradication (Preferred Alternative)

APHIS' preferred alternative for the Medfly program is eradication using an IPM approach. This alternative combines quarantine and commodity certification with eradication treatments. Eradication efforts for Medfly considered in the FF EIS (USDA–APHIS, 2001) include any or all of the following: chemical eradication, SIT, physical control, cultural control, and regulatory control.

The current eradication zone involves mainland and coastal property immediately to the east and southeast of the Pompano Beach municipal center (Neighborhood Scout, 2009). This zone covers a little more than 7.4 square miles (see map in appendix A) and is defined by intersecting buffers around each site on which an adult fly is trapped, or on which another life stage of Medfly is present. A regulatory (quarantine) boundary has been established that encloses the eradication zone and covers about 48.5 square miles. Eradication and control measures within these boundaries will continue for at least two Medfly generations, and trapping will continue for three generations, to be recalculated if a new find occurs, in order to delimit the infestation and to determine the efficacy of treatments (USDA–APHIS, 2003b and 2011c). All monitoring traps will be serviced for a period equal to three Medfly life cycles beyond the date of the last fly detection. The length of time required for the Medfly to complete its life cycle (total time from egg to adult) under typical Florida summer weather conditions, and upon which eradication schedules in Florida are based, is 21 to 30 days (FDACS, 2006). The date for three generations to complete development from the current detection is May 17, 2011 (USDA–APHIS 2011d). Depending upon temperature and climate variations and food availability, the Medfly life cycle has been known to take from 5 weeks to 5 months to complete (CDFA, 2008).

For many species of exotic fruit flies, effective nonchemical control or eradication techniques do not exist (USDA–APHIS, 2001). The nature of the Medfly outbreak in Pompano Beach indicates the need for an initial treatment plan that includes ground bait spray, fruit stripping, and SIT (USDA–APHIS, 2003b). If subsequent surveys reveal larval Medfly, soil treatment will be added to the plan.

The treatment plan for Medfly within the Pompano Beach eradication zone (USDA–APHIS, 2011a) will include ground applications of an organic formulation of spinosad bait to the foliage of host trees and plants within a 200-meter radius of each detection site. Foliar applications may be applied with hydraulic spray or hand-spray equipment. SIT will also be used on the Medfly population—the eradication zone will be flooded with a continued release of sterile male Medflies in order to disrupt the reproduction cycle and thereby reduce the wild population. Larval surveys will be conducted up to 200 meters around any property where a Medfly is trapped. As was done in the 2010 Boca Raton Medfly program, a diazinon soil drench will be applied to sites where Medfly larvae have been detected. In addition, if Medfly larvae are discovered, fruit from each infested property and up to 100 meters around the find site will be stripped and taken for disposal under regulatory compliance (USDA–APHIS, 2001).

The public will be notified 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. Treatments will be repeated daily for 7 to 14 days (or, one Medfly life cycle). The eradication project will continue for three life cycles past the date of the last Medfly trapped (USDA–APHIS, 2011d).

III. Potential Environmental Consequences

This EA analyzes the potential environmental consequences of alternatives that have been considered for Medfly 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) quarantine, (3) regulatory chemical application (fumigation, soil treatment, and bait spray application), (4) eradication chemical applications (protein bait spray and/or soil treatment), (5) cold treatment, (6) vapor heat treatment, (7) irradiation treatment, and (8) sterile insect release. The capability of an adult Medfly to fly distances in excess of 40 miles makes it possible for commercial host-plant growing areas outside the eradication zone to become infested. Therefore, the regulatory

treatment methods used for movement of commercial produce are covered in the event that the eradication zone should expand to include groves or orchards.

Alternatives for Medfly eradication have been discussed and analyzed comprehensively within the FF EIS (USDA–APHIS, 2001). The eradication measures being considered for this site-specific program—surveillance trapping, spinosad bait or malathion application, removal of fruit from potentially infested properties, and sterile insect release—have been analyzed comprehensively within the fruit fly chemical risk assessments (USDA–APHIS, 1998a and 1998b) and risk assessments for spinosad (USDA–APHIS, 1999b, 1999c, and 2003a). These documents are incorporated by reference and summarized within this EA.

This area’s site-specific characteristics 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 areas 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 eradication zone.

Pompano Beach was incorporated in 1947, merging the inland City of Pompano with the neighboring beach community. Initially a small agricultural settlement, the location became a popular tourist and boating destination located on the southeastern Florida seacoast. Its year-round resident population of 104,402 is spread over 25 square miles of Broward County and is administered by a city commission and mayor (CPB, 2010a and GPBCC, 2010). Pompano Beach is bordered on the north and west by small cities and towns, and on the south by the county seat, the City of Fort Lauderdale. The numerous marinas and inlets in Pompano Beach form part of the 3,000-mile navigable network known as the Intracoastal Waterway; the waterway separates mainland Pompano Beach from its shorefront community, which in turn borders the Atlantic Ocean.

The Pompano Beach economy is based on tourism, a high technology corridor, light industry and retail (GPBCC, 2010). The city also contains residential and recreational developed areas with a few urban/wildlife interfaces. Three major international airports and numerous domestic airfields are located within 30 miles of the city center; the Pompano Beach Airpark is entirely inside the northwest quadrant of the eradication zone (see map in appendix A). Golf, tennis, boating, swimming, scuba diving, hiking and biking are popular activities for residents and tourists. The local climate is hot during summer when temperatures can reach the 90's (°F), and mild during winter when temperatures tend to be in the high 50's.

The annual average precipitation is 60 inches, which falls as rain about 120 days per year (Sperling, 2010).

Potable water for Pompano Beach and surrounding communities is drawn from the Biscayne Aquifer (FDEP, 2007). Surface water and ground water recharge help to maintain the productivity of the aquifer. Much of the recharge water comes from the Everglades natural area. The Comprehensive Everglades Restoration Plan (CERP) and the Lower East Coast Regional Water Supply Plan (LECRWSP) both include strategies for providing water supplies to urban populations while maintaining natural systems. Broward County's Integrated Water Resource Plan provides coordination between the CERP, LECRWSP, Federal, State and local agencies (Broward County, 2011). To further conserve potable water, Pompano Beach operates OASIS, a water reuse utility for irrigation purposes (CPB, 2011).

Wastewater from rainfall and urban or agricultural runoff flows directly into local waters, picking up trash, dirt, chemicals, and other contaminants along the way. The Pompano Beach Medfly eradication plan calls for two types of chemical applications: ground-based spraying of spinosad bait to host trees and other plants, and diazinon soil drenches to larvae-infested trees and plants. As an added protection to existing municipal water treatment and recycling, standard mitigation measures will be applied to protect marine and freshwater resources, as discussed in section D, Environmental Quality.

There is extensive acreage dedicated to ecological conservation near the Pompano Beach Medfly detection site, including multiple Everglades Wildlife Management and Water Conservation Areas (12 miles to the west) and the Big Cypress National Preserve (about 40 miles to the southwest). The Loxahatchee National Wildlife Refuge and Water Conservation Area is located about 10 miles northwest of the detection site, and includes 145,800 acres of northern Everglades habitat. The Loxahatchee water conservation areas are maintained to provide water storage and flood control, as well as habitat for migratory birds, native fish and wildlife populations. Water is regulated by a series of pumps, canals, water control structures, and levees built by the Army Corps of Engineers. These freshwater storage areas and part of the Everglades National Park are all that remain of the original Everglades. The underlying aquifer provides water to nearby coastal communities (StateParks, 2010). Coastal and marine ecosystem research and conservation take place at the Gumbo Limbo Environmental Complex, which occupies 20 acres in the City of Boca Raton, about 8 miles north of the Medfly detection site (Gumbo, 2010).

The Pompano Beach eradication zone lies near other important ecological resources such as Butterfly World and the eastern Florida coral reef systems. Butterfly World, located about half a mile outside Pompano Beach and 4.5 miles northwest of the eradication zone, breeds and displays over 150 species of live butterflies (some on the Federal Endangered list) in ten acres of outdoor butterfly and bird aviaries, botanical gardens and research facilities (Butterfly World, 2006). Living coral reefs begin about ¼ mile offshore (WPDO, 2006). The Coral Reef Conservation Program manages the reef resources of southeast Florida, including the reef system offshore of Pompano Beach, and contributes to the National Action Plan to conserve coral reefs (FDEP, 2011). South Florida is the only place in North America that has natural coral reef systems within swimming distance of its coasts (CPB, 2010b); healthy reefs represent both a significant wildlife habitat and a multibillion-dollar source of income and employment for Martin, Palm Beach, Broward and Miami-Dade Counties (FDEP, 2010).

A. Human Health

No adverse effects on human health are expected to result from the program use of SIT or the Medfly traps used by the program for detection and delimitation trapping, monitoring of populations, and mass trapping (USDA–APHIS, 2001; EPA, 2008). The principal concerns for human health identified in the FF EIS are related to the potential program uses of the chemical pesticides, specifically, spinosad bait and diazinon (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 from program use patterns.

The Pompano Beach eradication program will employ surveillance trapping, ground-based spray applications of spinosad bait, diazinon soil drenches, and SIT. Potential exposure of humans to the spinosad bait has been minimized in this eradication program because treatments are limited to ground-based treatments applied directly to host plants. Potential exposure to diazinon is also expected to be low for applicators and the general public. The analyses and data of the FF EIS and human health risk assessments indicate that exposures to either pesticide from normal program operations are not expected to result in toxicologically substantial human health effects. (Refer to the FF EIS (USDA–APHIS, 2001) and the human health risk assessments (USDA–APHIS, 1999b, 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 instructions.

Another mitigation measure that will further minimize exposure of humans to program pesticides is the requirement for public notification. Information concerning the Pompano Beach Medfly eradication project will consist of press releases and media announcements to the general public. Either the county agricultural commissioner or the public information officer will serve as the primary contact to the media. Any resident with property to be treated will be notified in writing at least 24 hours prior to treatment. Following the treatment, notices will be left with homeowners detailing precautions to take and safe intervals of time that should elapse before harvesting fruit on the property.

APHIS recognizes that a portion of the population may have unusual sensitivity to certain chemicals and that program treatments may pose greater danger for these individuals. Special communication strategies have been developed that will mitigate this risk, and are discussed in detail in appendix C of the FF EIS (USDA–APHIS, 2001).

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 or the quarantine and commodity certification alternative would not eliminate the Medfly 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 potentially sensitive sites in the Pompano Beach program area. The eradication zone contains some properties and structures of historic and archeological significance, including a prehistoric Indian burial mound (CPB, 2010a). No adverse effects are anticipated as a result of the surveillance trapping, spinosad foliar spray applications, diazinon soil drenches, or SIT.

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...” Under Federal law, quarantine or treatment of commodities and premises is required in order to allow the interstate movement of any article that may harbor Medfly; Florida regulations govern movement outside the eradication zone to uninfested areas of the State (USDA–APHIS, 2006). The Coconut Creek Trust, Seminole Florida Trust, Hollywood

Reservation, Big Cypress Reservation, and Miccosukee Indian Reservation (indicated in figure 1) are federally recognized tribal lands in the vicinity of Pompano Beach. No tribal lands are located within the current eradication zone (the closest is Coconut Creek, 5.2 miles away), and none is expected to be affected by program activities within the eradication zone. Should future detections of Medfly warrant expansion of the current eradication zone into tribal lands, program officials will initiate consultation with the governing tribal authorities before undertaking further action.

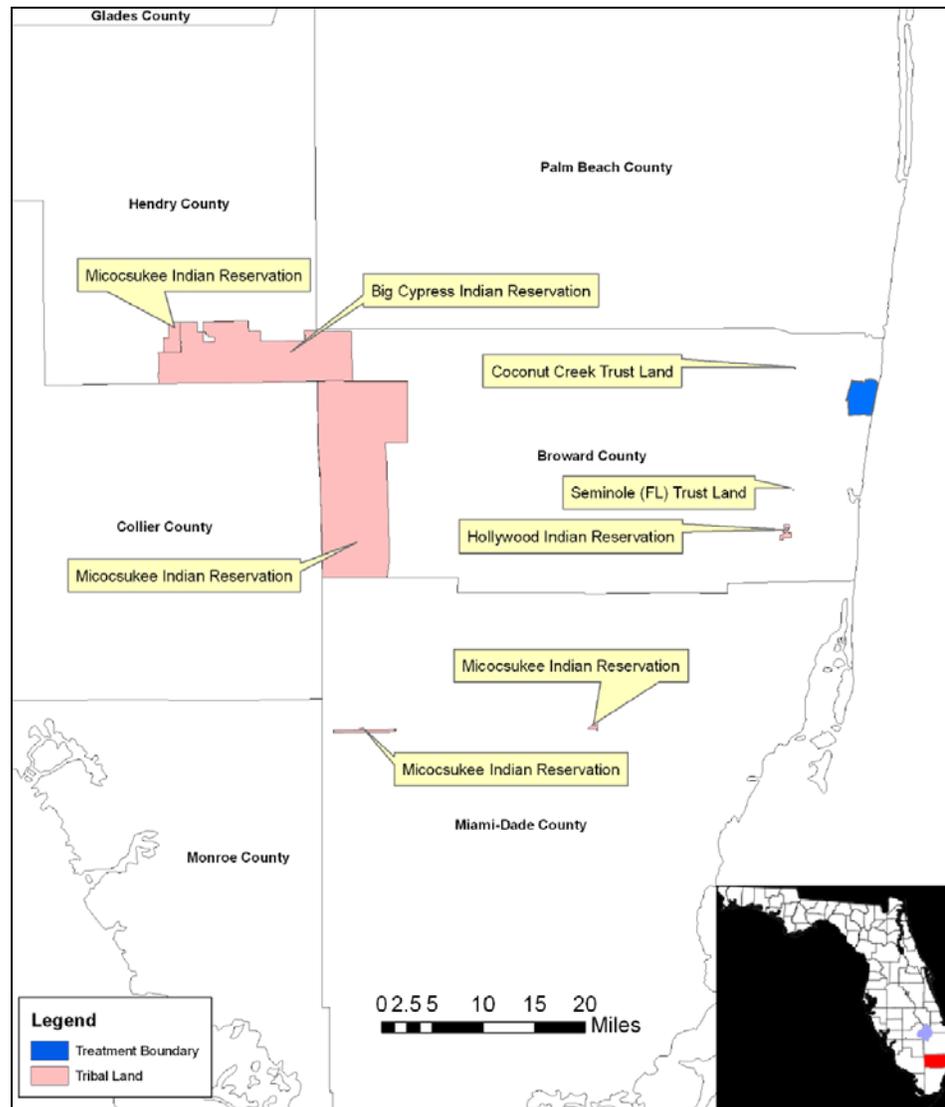


Figure 1. Mediterranean fruit fly eradication zone and tribal land locations.
(Source: USDA-APHIS)

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.

C. Nontarget Species

The principal concerns for nontarget species, including threatened and endangered species, also relate to 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 Medfly Cooperative Eradication Program pesticides are highly toxic to invertebrates; however, the likelihood of exposure (and thus, impact) varies a great deal with the use pattern. Current eradication activities in Boca Raton are limited to ground-based foliar applications of spinosad bait to host plants, diazinon soil drenches around larvae infested host plants, and the use of SIT to control invasive Medfly populations. The spinosad and diazinon treatments target Medfly life stages on 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 Medfly. Diazinon soil drench applications have high contact toxicity to most invertebrates, so adverse effects may be expected from both contact and ingestion. The soil drench is watered into the soil at the drip line of each affected plant, which limits the exposure area and potential risk to nontarget species in the treated soil (USDA–APHIS, 1999a). The release of sterile Medflies over the eradication zone will occur after the spinosad treatment has lowered the invasive Medfly population and thus reduced the population of sexually mature female Medflies. SIT 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, 2003a, 1999c, and 1998b) for more information on risks to all classes of nontarget species.)

A well-coordinated eradication program using IPM technologies (the preferred alternative) generally results in the least use of pesticides overall while ensuring minimal adverse impacts to nontarget species. The no action alternative and the quarantine and commodity certification alternative are less effective at eliminating Medfly. These alternatives are

also 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.

Threatened and Endangered Species

Section 7 of the Endangered Species Act and its implementing regulations require Federal agencies to ensure that 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 initiated emergency consultation with FWS in Vero Beach, Florida (South Florida Ecological Services Office) regarding the proposed eradication program. FWS reviewed the proposed program for Medfly control within Broward County and, based on their review of the information provided, determined that no candidate or federally listed endangered or threatened species are likely to be adversely affected by the proposed eradication program. In the event that the eradication zone has to be expanded, APHIS will reinitiate consultation with FWS, as necessary. At the completion of the program, APHIS will submit a biological assessment to FWS.

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. In relation to preserving environmental quality, program pesticides remain the major concern for the public and the program. Although program pesticide use is limited, especially in comparison to other agricultural pesticide use, the anticipated action 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.). The half-life of diazinon in soil ranges from 1.5 to 10 weeks; in water at neutral pH, from 8 to 9 days. The half-life of spinosad ranges from 8 to 15 days in soil, and up to 2 days in water; residues on plants persist for only a few hours. Effects from residues of individual treatments are no longer detectable in environmental substrates within a few weeks of application. (Refer to the FF EIS (USDA–APHIS, 2001) for a more detailed description of each pesticide’s environmental fate.)

Finally, the program has been considered with respect to its potential to cause cumulative impacts on the human environment. APHIS has considered implementation of the preferred alternative in the context of other pest insect eradication and quarantine projects in Florida. Preventive

releases of sterile male Medflies continue over high-risk areas of the State (FDACS, 2010a). As of February 15, 2011, Pompano Beach contains the only eradication zone designated for Medfly in the State of Florida.

The nearest and most recent Medfly eradication was declared in September 2010 for the Boca Raton area of Palm Beach County, about 7 miles away from the current Pompano Beach outbreak (FDACS, 2010a). All foliar bait spraying, fruit stripping and soil drenching was completed in that program, and the quarantine was removed after 88 days on 9/1/2010 (FDACS, 2010b). Trapping continues in Palm Beach County under the statewide fruit fly detection and monitoring program, and sterile Medflies will continue to be released there as a preventive measure (FDACS, 2010a) – when combined with trapping and SIT releases in other Florida counties, a beneficial cumulative impact on the environment is expected: namely, less Medfly damage to fruit and fewer spinosad and diazinon chemical treatments, due to the reduction in the Medfly population. Due to the passage of time and the prevailing weather conditions since September 2010, no chemical residues are believed to remain from the Boca Raton program that could result in additive or synergistic chemical effects with Pompano Beach chemical applications.

The treatments for overlapping pest management programs in Florida target different pests and do not affect the same nontarget organisms. Pest management programs in place at the time of preparation of this EA have been designed to target—

- citrus canker (bacterium),
- citrus greening (bacterium) and its insect carrier, Asian citrus psyllid, and
- citrus black spot (fungus).

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 State of Florida, 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 Medfly eradication program.

IV. Listing of Agencies Consulted

Florida Department of Agriculture and Consumer Services
Division of Plant Industry
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U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
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U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Policy and Program Development
Environmental and Risk Analysis Services
4700 River Rd., Unit 149
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U.S. Department of the Interior
Fish and Wildlife Service
South Florida Ecological Services Office
1339 20th St.
Vero Beach, FL 32960

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CPB –See City of Pompano Beach

CDFCA—See California Department of Food and Agriculture

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Appendix A. Mediterranean Fruit Fly in Pompano Beach, Broward County, Florida— February 2011

