Hawaiʻi Strategy for Pesticide Consultation Invitation Only Workshop

5-7 March 2024

The Hawaiʻi Strategy for Pesticide Consultation Invitation Only Workshop will be held in the Prince Jonah Kūhiō Kalanianaʻole Federal Building (PJKK), located at 300 Ala Moana Blvd, Honolulu, Hawaiʻi 96850. The main conference room is on the 4th floor, room 4-127. The conference room and U.S. Fish and Wildlife Service offices are located on the southwest side of the building, fronting Ala Moana Blvd. The northwest side of PJKK is occupied by the U.S. District Court. Guards at the Ala Moana entrance will be provided a list of attendees for the conference. Those on the list can access the building at the main entrance without standing in line for security screening. But everyone entering the Federal Building must present a valid, government-issued ID. **Please note that there is no public parking at the PJKK Federal Building** and metered on-street parking in the area is very limited. There are several paid parking lots nearby, but you may have to walk a few blocks to the building. It is strongly recommended that attendees utilize taxis, Uber/Lyft, or public transportation. A city bus from Waikiki to the PJKK Federal Building takes about 35 to 40 minutes.

Transportation

Charlie's Taxi- (808) 233-3333 / https://charleystaxi.com
The Cab - (808) 422-2222 / https://thecabhawaii.com
City and County Bus - https://thebus.org

City & County of Honolulu bus fares:
Single Fare: $3.00 (incl. 2.5 hrs unlimited transfers)
Full Day: $7.00
7-Day Pass: $30

Meals and Points of Interest

There is a cafeteria on the 5th floor – the Prince Kūhiō Café. The café offers a wide variety of hot meals, made to order sandwiches and grill items, and a salad bar. Hours are Monday through Friday from 6:15 a.m. to 2 p.m. There is also a snack shop on the ground floor courtyard open from 9 a.m.to 1 p.m.

Just across Punchbowl Street from the main entrance is Restaurant Row, featuring an assortment of restaurants and bars. Two blocks beyond that is SALT at Our Kaka'ako – 5000 square feet of curated retail, restaurant, and mixed-use space, SALT is a dynamic city block in Honolulu.

Business travelers to Honolulu often choose to stay in the Waikiki Beach area. It is crowded and touristy but offers many dining and entertainment options. Several hotels in Waikiki offer government per diem rates. Do keep in mind that Waikiki hotels typically charge anywhere from $25 to $55 per day for parking, and traffic is very congested. There are also a few hotels in the Downtown Business District about a 20-minute walk (0.6 miles) from PJKK. There is another option near Hawaiʻi's largest shopping center that is 2 miles from PJKK, this location is midway between the PJKK Federal Building and Waikiki. This location is about a 15-minute bus ride to PJKK, and the public bus stops right in front of the building.

Overview of Hawai‘i Strategy and Workshop

EPA and FWS are convening a the Hawai‘i Strategy for Pesticide Consultation Workshop, as part of an initiative to streamline the ESA section 7 consultation process for conventional herbicides, insecticides, nematicides and fungicides for federally threatened and endangered (listed) species in Hawai‘i. Approximately 40 percent of the 1,600 U.S. listed species occur in Hawai‘i. The two Agencies can greatly increase the efficiency of future pesticide consultations by evaluating Hawaiian species and pesticide actions using a broad approach that protects listed species and critical habitats across all of Hawai‘i rather than pesticide-by-pesticide or species-by-species (Hawai‘i Strategy). Completing this upfront work will also allow EPA to give pesticide users more certainty about the ability to continue using pesticides in Hawai‘i and to begin protecting species quicker rather than waiting for the completion of individual pesticide consultations.

Informed by initial outreach prior to the workshop, EPA outlined a draft decision framework to determine the level of mitigation needed to reduce potential population level impacts from pesticide uses in Hawai‘i along with potential draft mitigations to protect listed species and designated critical habitats. This early version of a draft Hawai‘i Strategy is aimed at protecting Hawaiian listed species from pesticide use, allow for continued use of pesticides in ways that comply with the ESA and FIFRA, and streamline the pesticide consultation process for listed species in Hawai‘i. The Strategy covers conventional pesticides for agricultural and some non-agricultural uses including golf courses, forestry, rights of way, landscape management (*e.g.,* turf and ornamentals), and mosquito adulticides. When finalized, EPA would use this strategy and framework to inform the ESA mitigation requirements in pesticide registration and re-registration decisions.

The workshop allows Hawai‘i state agencies and stakeholders to help EPA protect Hawai‘i listed species from pesticides in ways that are practical for pesticide users. A major part of the workshop is for EPA and FWS to discuss the information gathered to date on pesticide uses in Hawai‘i, their application methods, and current mitigation, best management practices, and conservation approaches employed in Hawai‘i to minimize or off-set pesticide exposure to listed species. The workshop will also offer participants the opportunity to provide individual feedback to the agencies if they believe the draft strategy and decision framework needs to be further tailored to the unique circumstances in Hawai‘i and help the agencies fill knowledge gaps through in-person discussions. At the workshop, EPA and FWS will also provide information they have gathered to date on existing conservation approaches and mitigation measures. EPA will provide attendees with additional background information prior to the workshop. The Strategy will be updated based on the feedback at the workshop and released for public comment prior to its finalization.

Major Workshop Goals

1. Explain scope of Hawai‘i Strategy to all participants and reasons for workshop.
2. Provide an overview of Draft Hawai‘i Strategy and obtain feedback from individual attendees if they believe the strategy and/or framework need to be further tailored to the unique circumstances in Hawai‘i. For example, highlighting island-specific considerations related to weather patterns, application methods, existing practices that EPA might not have captured in their initial outreach.
3. Discuss information collected to date and opportunities for individual participants to supplement that information and fill in any data gaps:

    a. Used to develop the draft decision framework that informs when and what level of protection is needed for a particular use.
    b. Used to tailor and add to EPA's current mitigation options that may be specific to pesticide use in Hawai'i. These uses include agriculture, golf courses, right of way, mosquito adulticides, forested areas, conservation areas, timber harvest areas, and turf/ornamentals with a focus on exposure related to onsite/direct, and off-site from drift and runoff.
4. Identify need for any follow-up discussions with stakeholders and state agencies.
5. Internal discussion between EPA and FWS on the effectiveness of the approaches and mitigation measures to reduce exposure and effects from pesticides, so that EPA can efficiently meet the goals for the Hawai'i strategy.

Workshop Attendance

EPA and FWS are inviting Hawai'i state agencies and selected stakeholders to participate in the workshop. These invitees will represent diverse disciplines and include the following organizations: USDA; Crop Life America; people with expertise in agriculture, golf course, rights of way, mosquito adulticides, forested area, conservation areas, timber harvest areas, and turf/ornamentals in Hawai'i and associated pesticide use and off-site transport minimization approaches; land managers; environmental organizations; experts on minimizing off-site transport of pesticides in soil and water and the effectiveness of those measures; and Hawai'i species conservation and habitat experts.

The workshop will start with a half day introduction to the draft strategy and decision framework so that all attendees have a foundational understanding of the project and goals of the workshop. The remainder of the workshop will consist of pesticide use specific sessions (*e.g.,* agriculture, rights of way, etc.) occuring over several days where EPA will present on use specific considerations related to the draft strategy and decision framework and request individual feedback from selected attendees with related expertise. Through these sessions, the agencies' goal is to discuss information collected to date and identify additional information to further refine/support the Draft Strategy and decision framework. This information could be related to topics such as extent of use, application method, island factors, species, and weather patterns. During the workshop, the agencies do not intend to address all pesticide uses in Hawai'i but rather focus on uses for which the agencies expect to make the most progress on mitigation measures for listed species.

Overview of Agenda

Day 1 - Tuesday March 5th

8:30 am - 9:00: Arrival

9:00 - 12:00 pm (with breaks): Kick-off, Project Introduction and Q&A

12:00 - 1:30: Lunch on your own

1:30 - 2:45: Mosquito Adulticides

2:45 - 3:15: Break

3:15 - 4:30: Golf Courses

4:30 - 5:00: Wrap-up

Day 2 - Wednesday March 6th

8:30 am - 9:00: Arrival

9:00 - 10:15: Forested Areas - Recreation Areas

10:15 - 10:45: Break/Overflow time

10:45 - 12:00 pm: Conservation Areas

12:00 - 1:30 Lunch on your own

1:30 - 2:45: Timber Harvest Areas

2:45 - 3:15 Break

3:15 - 4:30: Rights of Way

4:30 - 5:00: Wrap-up

Day 3 - Thursday March 7th

8:30 am - 9:00: Arrival

9:00 - 10:15: Agriculture

10:15 - 10:30: Break

10:30 - 11:45: Turf/Ornamentals

11:45 - 12:00 pm: Recap, Wrap-up and Next Steps

12:00 - 1:30 Lunch on your own

1:30 - 5:00 – EPA/FWS/USDA Discussion and Next Steps

Additional Information on Each Topic

Topic: All

The following topics/questions are applicable to all uses. Use specific topics and questions are identified in the use specific section.

Discussion Topics: Common application methods and consideration of weather/topography, existing mitigation/BMPs, island specific considerations, limited aerial applications, known mitigation not captured in Workshop materials, mitigation feasibility, IPM considerations, mitigation effectiveness, existing training related to endangered species, data gaps, and existing collaboration.

General Discussion Questions:

- What are the common application methods used? Are there any not captured in the Workshop materials?
- How and when are aerial applications used, if ever?
- What considerations are made prior to applications related to weather (wind speed, wind direction, precipitation) or location (soil, soil saturation, slope, distance to waterbodies or aquatic habitats, etc.)? What is the feasibility of implementing wind directional buffers or wind speed restrictions?
- What is the feasibility to train applicators on identification of listed species? Is this already happening or do you receive support from outside sources related to this?
- Are there additional methods used to reduce spray drift and erosion/runoff in landscape not captured or discussed in the Workshop materials? Are these specifically tailored to Hawai‘i? Are there any mitigation strategies being used to specifically to prevent listed species exposure?

General Data Gaps:

- While some information is available depending on the use site, need a better understanding of the listed species found on each use site; and
- Mitigation effectiveness

Day 1

Topic: Mosquito Adulticides

- General Discussion Topics: Consideration of exposure to pollinators, application equipment and treatment size, applicability of malathion biological opinion mitigations based on application methods used in Hawai'i
- Known Coordination on Pesticide Use:
    - State
- Data Gaps:
    - Size of treated area in relation to application equipment
- Discussion Points/Questions:
    - Obtain information on typical ground application equipment (*e.g.,* type and spray system parameters) and a typical treatment area (size of application).
    - How do applicators consider direct exposure to non-target organisms like pollinators (e.g., bees)?
    - Applying adulticide mitigations from other actions (e.g., malathion BiOP) to this use more generally?

Topic: Golf Courses

- General Discussion Topics: Application equipment and treatment size; BMPs
- Known Collaborations on Pesticide Use:
    - Golf Course Superintendents BMP Handbook
    - University of Hawai'i
    - Watershed Plans
- Data Gaps
    - Size of treated area and in relation to application equipment type
- Discussion Points/Questions
    - How widely are the BMPs outlined in the BMP handbook implemented across the state?
    - Are there specific recommendations or considerations for the recommended width and length of riparian buffers? Do these follow the state watershed guidance?
    - How, if at all, do approved watershed plans factor into application planning?
    - Obtain information on typical ground application equipment (*e.g.,* type and spray system parameters) and a typical treatment area (size of treated area).
    - Additional perspective on the possibility, practicality, and benefit of including aerification as a mitigation for runoff.

Day 2

Topic: Forested Areas

- General Discussion Topics: Land managers, stewardship programs, forested wetlands, use of drones or other emerging technology
- Known Coordination on Pesticide Use or Stewardship Programs:
    - Hawai‘i Soil Conservation Forest Stewardship Program
    - Tree Farm Plans
    - Conservation Districts and Permit Process
    - Conservation Plans
    - Support from University of Hawai‘i for invasive species management
    - Invasive species councils
- Data Gaps:
    - Size of treated area and in relation to application equipment
- Discussion Points/Questions:
    - Obtain information on typical ground application equipment (*e.g.,* type and spray system parameters) and a typical treatment area (size of application), especially for broadcast applications. Are there situations where airplane or helicopter applications would occur?
    - How active are the stewardship programs? What is the oversite and review process for participation? Are there BMPs for pesticide applications in forests managed for recreation?

Topic: Conservations Areas

- General Discussion Topics: Land managers, application equipment and treatment size, use of drones or other emerging technology
- Known Coordination on Pesticide Use or Stewardship Programs:
    - Stewardship programs
    - Conservation Districts and Permit Process
    - DoD Conservation Plans
    - Hawai‘i Soil Conservation Forest Stewardship Program
    - Support from University of Hawai‘i for invasive species management
    - Invasive species councils
- Data Gaps:
    Size of treated area and in relation to application equipment
- Discussion Points/Questions:
    - How are pesticide practices in conservation areas discussed, approved and adopted among managing partners?
    - Are there drift or runoff mitigations that are actively employed, especially in the case of coastal conservation areas?
    - How active are the stewardship programs? What is the oversite and review process for participation?
    - Obtain information on typical ground application equipment (*e.g.,* type and spray system parameters) and a typical treatment area (scale of application), especially for

broadcast applications. Are there situations where airplane or helicopter applications would occur?

Topic: Timber harvest areas

- General Discussion Topics: Stewardship programs, application equipment and treatment size, especially for broadcast applications
- Known Coordination on Pesticide Use or Stewardship Programs:
    - Conservation Districts and Permit Process
    - Hawai'i Soil Conservation Forest Stewardship Program
    - Tree Farm Plans
- Data Gaps:
    - Size of typical treated area and in relation to application equipment
- Discussion Points/Questions:
    - Obtain information on typical ground application equipment (*e.g.,* type and spray system parameters) and a typical treatment area (scale of application), especially for broadcast applications. Are there situations where airplane or helicopter applications would occur?
    - How active are the stewardship programs? What is the oversite and review process for participation?

Topic: Rights of Way

- General Discussion Topics: Application equipment and treatment size, especially broadcast applications; different ROWs and how listed species interact with them.
- Known Coordination on Pesticide Use:
    - Programmatic considerations (DOT and the state)
    - Kaua'i Island Utility Cooperative Draft Habitat Conservation Plan
- Data Gaps:
    - Size of treated area
    - Types of rights of way used by species
- Discussion Points/Questions:
    - Are there situations where airplane or helicopter applications would occur?
    - Obtain information on typical ground application equipment (*e.g.,* type and spray system parameters) and a typical treatment area (size of application), especially for broadcast applications.
    - For species that are likely to occur on rights of way, is it possible to identify the type of rights of way, meaning roads, powerlines etc?
    - Are listed plants found on any of rights of way?
    - Is there active site surveying that occurs for listed plants or other species prior to maintenance activities?

Day 3

Topic: Agriculture

- Additional Discussion Topics: Use of drones or other emerging technology
- Known Collaborations on Pesticide Use:
    - Outreach to growers by state (droplet size selection, drift, application safety, etc.)
    - Enforcement
    - Certified applicators
    - Restricted Use Pesticides
    - Advisory Committee on Pesticides
    - Special Local Need/Experimental Use Permit/Section 18 consultations
    - Soil and Water Conservation Districts
    - Polluted Runoff Control Program
    - Watershed Plans
- Data Gaps:
    - Additional crops used by species
- Discussion Points/Questions:
    - Obtain additional information on conservation or mitigation measures found in conservation plans that are related to agriculture. Are the most common measures already identified by the Soil and Water Conservation District annual reports and by the Hawai‘i Natural Resources Conservation Services field office? Are there any additional measures that are specific to Hawai‘i? Do these mitigations also meet the needs for the state watershed plans for runoff and erosion control?
    - How, if at all, do approved watershed plans factor into application planning?
    - Obtain information on typical ground application equipment (*e.g.,* equipment size, spray system parameters, etc).
    - Obtain information on pesticide use on the common agricultural crops in Hawai‘i including:
        - Is the 2003 description of pesticide use by the seed industry accurate: seed treatment, preemergence insecticide application and regular treatments with insecticides and fungicides.
        - Is the 2002 information that pesticides are rarely used in macadamia nut orchards accurate?
        - How are pesticides used in water-related agricultural crops such as taro, lotus, and aquaculture? Is it accurate that pesticides are used in non-flooded (“upland” or “dry land” taro production) and that pesticide use is prohibited in flooded taro production?
    - Is it accurate to assume that pesticide applications in pasture settings are unlikely to result in significant exposure to listed species?

Topic: Turf/Ornamentals (e.g., resorts, public landscaping areas for turf/ornamentals, and ornamental nurseries)

- General Discussion Topics: Application equipment and treatment size; Given the lack of known active BMPs, support needed for implementing industry BMPs or other mitigation options.

- Known Collaborations on Pesticide Use: None identified.
- Data Gaps:
    - Existing partnerships/conservation plan participation
    - Size of treated area and in relation to application equipment type
- Discussion Points/Questions
    - Are there any existing partnerships or conservation plan participation for ornamental nurseries or landscape turf/ornamental sites?
    - Obtain information on typical ground application equipment (*e.g.,* type and spray system parameters) and a typical treatment area (size of treated area).
    - What is the frequency of outdoor overhead chemigation and outdoor fogging applications in outdoor nurseries and recommendations on how to limit drift from these types of applications?

Afternoon Final Day

- **Internal discussion between EPA, FWS and USDA on the effectiveness of the approaches and mitigation measures so EPA can efficiently meet the goals for the Hawai'i strategy.** The goal of this session is to discuss updates that should be made to the draft decision framework and mitigations based on feedback from attendees.