



# California Regional Water Quality Control Board

## San Francisco Bay Region



Linda S. Adams  
Secretary for  
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Arnold Schwarzenegger  
Governor

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Jim Rains  
Staff Environmental Scientist  
California Department of Food and Agriculture  
Plant Health and Pest Prevention Services Division  
1220 N Street, Room A-316  
Sacramento, Ca 95814

### **Subject: Draft PEIR for the Light Brown Apple Moth Control Eradication Program**

Dear Mr. Rains:

We have received notice of and reviewed the Draft Programmatic Environmental Impact Report (PEIR) prepared by the California Department of Food and Agriculture (CDFA) to address the potential environmental impacts that would result from implementation of alternatives for the eradication of the light brown apple moth (LBAM) (*Epiphyas postvittana*). CDFA is proposing a variety of programs to eradicate the LBAM, including:

- Mating disruption with pheromones using:
  - Twist ties (Alternative MD-1)
  - Ground application (Alternative MD-2)
  - Aerial application (Alternative MD-3)
  - Male Moth Attractant (Alternative MMA)
  - Organically Approved Insecticides *Bacillus thuringiensis kurstaki* and Spinosad (Alternatives Btk and S)
- Non-chemical treatment
  - Inundative Parasite Wasp Releases (Alternative Bio-P)
  - Sterile Insect Technique (Alternative SIT)

We have the following general and specific comments on the proposed alternatives.

### **General Comments**

The California Regional Water Quality Control Board, San Francisco Bay Region, is responsible for maintaining water quality in the San Francisco Bay Area to protect designated uses of surface and ground waters. These beneficial uses include fish migration and spawning, cold and warm freshwater habitats, municipal and domestic water supply, estuarine habitat, and preservation of

rare and endangered species, among others. The PEIR notes that the San Francisco Bay Hydrologic Region includes many of the 13 counties most affected by LBAM. As the agency charged with protecting the surface and groundwaters of the Bay Area, we have concerns about the potential impacts of the LBAM programs proposed by CDFA, particularly of aerial spraying and ground spray treatments. In general we support the use of non-pesticide alternatives including pheromones and parasitic wasps but have concerns about the potential impacts of the use of pesticides and inert ingredients used in the spray formulation, ground treatments, and male moth attractant (MMA) and their possible effects on waterbodies, aquatic life and human health. We would like to see stronger mitigation measures taken to protect aquatic species and waterbodies.

**Specific Comments:**

1. The “No Program” alternative makes many assumptions based on increased pesticide use based on a perceived increased risk from LBAM. The conclusions in the PEIR are that this alternative would have potentially significant impacts to water quality and aquatic species based on the toxicity of currently used pesticides (chlorpyrifos, permethrin, and lambda-cyhalothrin). The PEIR should detail what data CDFA has used to develop these assumptions and determine the magnitude of increased pesticide use.
2. Actions proposed to be taken to minimize runoff into waterbodies and impacts to aquatic life need to be strengthened and clarified, including what specific data exist to verify that these actions have been effective in past LBAM or other programs.
3. The PEIR assumes that very little or no pesticides would get into waterways, but it is not clear how this will be successfully implemented given the proposed very small buffer zone (25 feet) around waterways and the potential for toxic materials to reach streams by way of urban runoff, ephemeral channels, and spills. Impact WR-4 notes that “Alternative MMA could result in the exceedance of water quality standards when permethrin is used. Impacts would be potentially significant but mitigable.” It is noted that permethrin is highly toxic to aquatic organisms. The 25-foot buffer zone would not appear to be adequate for preventing runoff into waterbodies given the potential for unexpected rain events or urban watering to wash toxic materials into creeks, wetlands or San Francisco Bay.
4. Impact ECO 34 notes that aerial spraying could “cause exceedance of Federal or State Agency Surface or Groundwater Quality Standard or Water Quality Objective for Hazardous Materials or Priority Pollutants as Recognized in the California Toxics Rule” from the use of permethrin. Impacts are considered potentially significant but mitigable by maintaining 25-foot buffer areas from bodies of water, with no spraying on days with wind speeds exceeding 10 miles per hour. We have the same comment as in #3 above, about the effectiveness of this buffer zone. The PEIR also notes that “Additional mitigation, wherein spraying is avoided

near open water when wind direction is towards nearby water should be implemented”. This additional mitigation should be clearly defined.

5. With regard to the hazards of aquatic toxicity via spills and operator error, there is little mitigation proposed and no data provided on how successful buffers and spill procedures have been during past applications. These data need to be provided as part of the PEIR.
6. The criteria for avoiding specific sensitive areas should be outlined in the PEIR and specific proposals for working with resource and regulatory agencies (in addition to CDFG and NOAA Fisheries) defined. What criteria will be used by various agencies and what criteria will be used if agencies are not consistent in their requirements?
7. The PEIR should clarify how “aquatic environments” will be defined for buffer zones, e.g., will this include headwaters and ephemeral stream channels?
8. The PEIR does not address reports of impacts from the 2007 LBAM aerial spraying in California and whether these impacts have been verified, quantified, and taken into consideration when preparing the current proposed program. For example, the PEIR claims that there is no need to evaluate impacts to surface waters because no chemicals will be applied over water. This is contrary to data reported that contamination was found in sensitive waterbodies following the 2007 spraying.
9. Some results (ECO 21, 29) are “based on uncertainty” of effects on other insects, etc. in modeling data; the PEIR therefore concludes that there is no impact to be mitigated. It should be clarified how uncertainty in data leads to this finding.
10. If spraying occurs, will CDFA offer any guidance to local communities on hosing down driveways, structures, playgrounds, etc., following the spraying? We are concerned that any activities of this sort would violate stormwater regulations about discharging pollutants into storm drain systems and waterbodies, and so potentially put communities in violation of their Municipal Stormwater Permits. We urge CDFA not to recommend hosing off the spray due to the adverse impacts to the local waterbodies as well as for water conservation reasons.
11. This framework includes evaluating if different types of use may involve different water quality impacts in agricultural, non-urban, or urban areas. For example, the latter are characterized by large impervious areas with high runoff rates. As noted, this may influence the amount of material that is washed off into nearby waterways in urban areas.
12. The PEIR states that “Aerial application of the pheromone in agricultural or undeveloped areas may be considered where ground applications of the pheromone are not feasible.” How will CDFA define “undeveloped areas” and “uninhabited areas such as forests and chaparral” – will this include parks and wilderness areas?

13. The PEIR indicates that there will be excluded zones (schools and parks) so it is unclear what measures CDFA proposes to eradicate the LBAM in such areas.
14. Impact ECO-38 states that Alternative MMA would not impact juvenile amphibians based on the assessment of no impacts to other aquatic ecological receptors, in spite of a data gap in information on the sensitive life stages of amphibians. The PEIR states that sensitivity of these life stages can be considered by examining potential effects to other obligate aquatic receptors (e.g., fish). Since no impact was identified for these receptors for this alternative, this suggests there is no adverse effect in juvenile amphibians as well; therefore, no mitigation is proposed. We question the validity of this assumption based on the significant physiological differences between fish and amphibians and particularly the vulnerability of the latter under increasing ecological stressors.
15. The PEIR in Section 9.2.2.2. states that treatments are being considered as stand-alone options; how does this allow for determining cumulative impacts of multiple options potentially used simultaneously?

In summary, our agency continues to have concerns about the possible effects of ground and aerial spraying in our watershed areas, and we request that the Water Board be kept directly informed about potential control methods and be actively involved in all environmental review of processes and documents developed by CDFA in relation to spraying or other applications of pest eradication materials. We request a written eradication plan and schedule for any control activities ultimately proposed so that the Water Board can participate as appropriate to assist in avoiding any potential water quality impacts.

Please address any response to Dale Hopkins at [dhopkins@waterboards.ca.gov](mailto:dhopkins@waterboards.ca.gov) or (510) 622-2362; we would appreciate your keeping her informed.

Thank you for your consideration.

Sincerely,

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Assistant Executive Officer

Cc: Jim Rains, CDFA  
Bill Johnson, RWQCB

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