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BY FACSIMILE, EMAIL AND U.S. POST
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Jim Rains
Staff Environmental Scientist
California Department of Food and Agriculture
1220 N Street, Sacramento, CA 95814

Re: Comments on the California Department of Food and Agriculture's July 2009 Draft Programmatic Environmental Impact Report Regarding the Light Brown Apple Moth Eradication Program

Dear Mr. Rains:

On behalf of North Coast Rivers Alliance ("NCRA"), Stop the Spray Marin and many concerned individuals including Santa Cruz City Councilmember Tony Madrigal, Town of Fairfax Councilmember Larry Bragman, Town of San Anselmo Councilmember Ford Greene, Stop the Spray Alameda County Coordinator Helen Kozoriz, Albany City Councilmember Robert Leiber and Stop the Spray Marin Boardmember and former Fairfax Mayor Frank Egger (collectively, "NCRA"), we respectfully submit the following comments on the California Department of Food and Agriculture's ("CDFA's") July 2009 Draft Programmatic Environmental Impact Report ("DPEIR") regarding the Light Brown Apple Moth ("LBAM") eradication program.

In summary, the DPEIR relies on flawed assumptions, data and methodology. Its conclusions are contrary to sound science and available evidence. Its findings of no significant unmitigable impacts for any of the Program Alternatives cannot be supported by the evidence presented. Rather, it appears from the DPEIR that CDFA has already decided its course of action regardless of the environmental impacts, undermining the very purpose of CEQA review.

I. CDFA'S CATEGORIZATION OF THE LIGHT BROWN APPLE MOTH AS AN ACTIONABLE PEST IS NOT BASED ON SOUND SCIENCE.

Despite the minimal risk of crop damage posed by LBAM, similar to the damage posed by other tortrix moths found within California, both CDFA and USDA decided in the late spring of 2007 to pursue a path of LBAM eradication, and determined that LBAM was an actionable pest. Although the LBAM Technical Working Group ("TWG") suggested that the regulatory agencies perform in-depth environmental and economic assessments to address whether the benefits of eradication outweigh the associated monetary and environmental costs, CDFA and

USDA declined to examine these costs before forging ahead with an eradication plan. LBAM TWG Recommendations 6/8/07. As addressed below in our comments regarding the DPEIR's No Program Alternative analysis, the limited environmental and economic damage that the LBAM could cause has never been properly assessed by either agency, despite the Plant Protection Act's requirement that the Secretary of Agriculture use sound science when determining the actions required against new pests, 7 U.S.C. § 7701(4), and CEQA's parallel mandate that an EIR be based on "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." CEQA Guidelines § 15384(b).

II. THE DPEIR'S PROJECTED STATEWIDE PROGRAM AREA FAILS TO ACCOUNT FOR THE IMPACT OF HEAT ON LBAM SURVIVAL.

In Section 2.1's project description and in related references to the LBAM program area, the DPEIR projects that the LBAM will become established throughout all areas of the state below 5,000 feet elevation that have adequate vegetation to support the moth. § 2.1, p. 2-1; Fig. 2-1, Fig. 2-2. But in reaching this determination, the DPEIR fails to examine the effects of high summer temperatures on LBAM survival and reproduction. Mortality rates for LBAM rise as average daily temperatures increase from 28°C to 45°C (82°F to 113°F). *See* A.G. Gutierrez, et al., *Climatic Limits of the Light Brown Apple Moth in Arizona-California: Comments on its Eradication*, p. 4 (Feb. 13, 2009) (Exhibit 1 attached). Additionally, LBAM eggs generally will not hatch at temperatures above 31.3°C (88°F), and the upper threshold for development of larvae and pupae is approximately 31.5°C (89°F). *Id.* The leading Australian study of LBAM mating disruption documents a strong negative correlation between pheromone trap catches and temperatures above 30°C (86°F); the authors concluded that the high temperatures were probably the cause of reduced populations, as they are known to "inhibit moth flight, . . . reduce the success of egg hatching, molting and pupation of larvae, and emergence of adults from pupae, and . . . kill some [LBAM]." J. Mo, *et. al.*, *Evaluation of Mating Disruption for Control of Lightbrown Apple Moth (Lepidoptera: Tortricidae) in Citrus*, 99(2) J. ECON. ENTOMOL. 421, 425, citing W. Danthanarayana and H. Gu, *Influence of environmental conditions on flight duration of Epiphyas postvittana (Walker) (Lepidotera:Tortricidae),* 40 AUST. J.ZOOL. 477, (1992); W. Danthanarayana, *The bionomies, distribution and host range of the light brown apple moth, epiphyas postvittana (Walk.) (Tortricidae)*, 23 AUST.J.ZOOL. 419 (1975).

The DPEIR's inclusion of most of the state within the project area is unsupportable. CDFA failed to consider the restraining influence of the typically hot summers in most of the state, including the agriculturally rich central valley, on the spread and propagation of LBAM. The DPEIR has projected a far larger area of the state as the LBAM program area than is supported by sound science.

III. THE NO PROGRAM ALTERNATIVE'S ANALYSIS OF THE RISKS POSED BY THE LBAM IS FLAWED.

The No Program Alternative ("NPA") is beset with many flawed assumptions regarding the presence of LBAM throughout the inflated project area and resulting increased agricultural costs, crop damage and pesticide spraying. These assumptions are not supported by sound science.

The DPEIR vastly misstates the potential harm that the LBAM may cause to agriculture and the environment. *See, e.g.*, § 3.2.3, pp. 3-19 to 3-26; § 10.2.3, pp. 10-14 to 10-15. USDA's and CDFA's underlying position that LBAM is an actionable pest creates the false premise on which the DPEIR is drafted. The DPEIR's focus on LBAM's potential economic and environmental costs fails to acknowledge that the primary costs to farming operations arise not from actual damage caused by LBAM, but rather out of CDFA's and USDA's quarantine actions. Consequently, the DPEIR understates the financial impacts of its quarantine actions, and overstates the risks posed by the LBAM. The presumed but unsubstantiated risk of crop damage has motivated the continued quarantine and eradication efforts of both agencies since 2007. The absence of documented LBAM crop damage since its discovery indicates that the risks of damage from this insect have been vastly overstated.

The NPA's crop damage projections are faulty. *See, e.g.*, Appendix B, § B3.3.1, p. B3-5. Instead of examining data showing known potential levels of damage, the DPEIR used inapplicable reports of damage to Australian grapes, oranges, apples and pears, that were then extrapolated to the annual value of not only those crops in the United States, but "to *all* known host crops in the primary and statewide Program Area." § 3.2.3.2, p. 3-20; § B3.2.3, p. B3-5. CDFA's justification for this extrapolation of damage projection is contrary to the fact that no damage to grapes, oranges, apples and pears—much less to all claimed "host crops"—has been documented to date in California. Additionally, it is not clear whether CDFA used host crops in the same genus as those that LBAM is thought to utilize, or if CDFA only used crops that LBAM actually uses. For these reasons, the NPA's conclusions based on this assumption of widespread crop damage lack factual support. § 3.2.3.2, pp. 3-20, 3-21.

The NPA's assumed risk to special status plant and animal species depends on equally dubious extreme extrapolation. For example, the NPA assumes that the LBAM will feed on any special status plant species within the genera of *Arctostaphylos, Baccharis, Berberis, Ceanothus, Cirsium, Cupressus, Helianthus, Lilium, Lotus, Lupinus, Opuntia, Phlox, Polygonum, Rosa, Trifolium,* and *Verbena*, based on the premise that LBAM will feed on any species within the same genus as a known host. § 10.2.3, p. 10-14. The NPA additionally assumed that any special status species which depend on plants within known host genera are also at increased risk, due to the potential loss of those plants. § 10.2.3, pp. 10-14, 10-15. The NPA's declaration that these

impacts could be potentially significant is highly speculative, as "many, and perhaps all, of these host species have neither been encountered by nor tested against LBAM as of yet . . . ." *Id.*

The NPA's claimed impacts to urban and rural land uses are likewise overstated. The DPEIR asserts that the existence of LBAM will increase the risk of fires under the NPA. § 4.2.3.1, p.4-9. CDFA does not provide any citations to support or further elaboration on the basis for this statement, yet it finds that "[i]mpacts would be potentially significant." *Id.* Because this claim lacks scientific and factual support, it has no place in CEQA review. CEQA Guidelines § 15384(b). Sadly it appears to be a blatant attempt to exaggerate fears surrounding the LBAM.

The NPA's assumptions and analysis regarding increased residential use of pesticides similarly lack support. The NPA assumes that homeowners will use specific pesticides to combat the LBAM, as recommended by A.G. Kawamura. *See, e.g.*, § F3.1.1, p. F3-3; Phytosanitary Advisory 15-2008, Approved Treatments for Light Brown Apple Moth (LBAM) in Nurseries (July 16, 2008). But there is no factual basis for this assumption. Moreover, the NPA's analysis of these pesticides fails to acknowledge their limitations. For example, the EPA "entered into an agreement with the technical registrants to eliminate virtually all homeowner uses [of chlorpyrifos], except ant and roach baits in child resistent [sic] packaging." EPA Chlorpyrifos Fact Sheet, http://www.epa.gov/oppsrrd1/REDs/factsheets/chlorpyrifos_fs.htm, (last visited September 18, 2009). To that end, the registration for Dursban 4E, one of the NPA Chlorpyrifos brands recommended for use against LBAM, was cancelled in March of this year. Moreover, Chlorpyrifos-containing pesticides are classified as restricted use pesticides when used in the manner assumed by the NPA; Chlorpyrifos pesticides can only be sold to or applied "by Certified Applicators or persons under their direct supervision." *See, e.g.*, Whitmire PT 275 Dur-O-Cap Microencapsulated Chiorpyrifos Product Label, (approved March 15, 2009); 40 CFR § 156.10. Lambda-cyhalothrin, another NPA approved pesticide, is also a restricted use pesticide. Warrior Insecticide with Zeon Technology Product Label, (approved February 6, 2009). Accordingly, the assumption that these pesticides will be commonly used is baseless.

Although the use of other NPA pesticides is not similarly restricted, CDFA has failed to support its contention that residential pesticide use against the LBAM will occur. NCRA notes that its members reside within the current program area, yet they have not encountered any leaf-roller damage in the gardens and parks sin their communities, much less at levels sufficient to justify consideration of any pesticide use.

The DPEIR also assumes that the NPA's predicted application of traditional pesticides will occur in the trees and shrubs of front and back yards—but not gardens— in residential areas. *See e.g.,* Appendix C5.2.3.1, p. C5-6. This oft-repeated statement just doesn't make sense; trees and shrubs are often found throughout residential gardens. Additionally, the DPEIR's air quality modeling assumes that each yard would average 1,600 square meters; this size seems to be overly generous, as it translates to 17,222 square feet of *yard* alone. *See* §C5.2.2, p. C5-5.

Clearly, the modeling used to generate a finding of potentially significant impacts from the NPA relies on vast exaggerations of both the nature, likelihood and areal extent of residential pesticide use.

For these reasons, the DPEIR's findings of potentially significant impacts for the NPA, based on the assumed increase in pesticide use and increased damage caused by LBAM, lacks factual support as required by CEQA Guidelines section 15384(b), and therefore should be withdrawn. § 3.2.3.5, p. 3-24; § 4.2.3.1, p. 4-8; § 5.2.3, p. 5-27; §§ 6.2.3.1, 6.2.3.2, 6.2.3.3, 6.2.3.4, 6.2.3.5, pp. 6-40 to 6-42; § 8.2.3, pp. 8-25 to 8-31; §§ 9.2.3.1, 9.2.3.2, p. 9-12; § 10.2.3, pp. 1-14 to 10-17; §§ 11.2.3 *et seq.*, pp. 11-16 to 11-20; §§ 12.2.3. *et seq.*, pp. 12- 44 to 12-48.

IV. CONTRARY TO THE DPEIR'S ASSUMPTION, THE STATED PROGRAM GOAL OF ERADICATION IS LIKELY INFEASIBLE; THE PROGRAM ALTERNATIVES WILL NOT ACHIEVE THE PROGRAM'S GOALS.

The DPEIR program assumes that all project alternatives would successfully eradicate the LBAM from California. *See, e.g.*, § 3.2.4.1, p. 3-27; § 3.2.4.2 p. 3-28. Despite this bold assumption of success, the DPEIR contains no scientific evidence that either the individually or combined efforts of mating disruption, Sterile Insect Technique ("SIT") with Male Moth Attractant ("MMA"), or wasps with MMA would actually eradicate the LBAM, as shown below.

1. Sterile Insect Technique Has Limited Successful Application As a Lepidopteran Control Method, Let Alone An Eradication Method.

The program relies on the SIT Alternative as the primary eradication tool. § 2.3.6, p. 2-14. SIT is already used in California as part of a integrated pest control program to suppress the Pink Bollworm, a lepidopteran larvae and the Mediterranean Fruit Fly ("Med Fly").

When used against moth species, SIT alone rarely successfully controls, let alone eradicates, the target moths. K.A. Bloem *et al.*, *Impact of Moth Suppression/ Eradication Programmes Using the Sterile Insect Technique or Inherited Sterility,* in *Sterile Insect Technique: Principles and Practice in Area-Wide Integrated Pest Management*, 677, 678 (V.A. Dyck et al. eds., 2005). In order for SIT to be successful, the target moth population levels must be low, as otherwise the sterile moths do not divert a sufficient number of fertile moths from successful mating. R.L. Mangan, *Population Suppression in Support of Sterile Insect Technique*, in *Sterile Insect Technique: Principles and Practice in Area-Wide Integrated Pest Management, supra,* at 407; p. Nagel, R. Peveling, *Environment and the SIT,* in *Sterile Insect Technique: Principles and Practice in Area-Wide Integrated Pest Management, supra*, 499, 503. Historically, the initial population suppression required for effective SIT led to the use of traditional pesticides.

In order to successfully sterilize male moths, they must be subjected to relatively high doses of radiation; the increased amount of radiation used to achieve adequate sterility, however, *decreases* moth competitiveness in the field. *See, e.g.,* C.O. Calkins & A.G. Parker, *Sterile Insect Quality, in Sterile Insect Technique: Principles and Practice in Area-Wide Integrated Pest Management, supra*, 269, 279-280 (noting that male moths which are dosed at high enough levels to achieve 100% sterility have a lower response rate to non-mated female moths than moths which have not been fully sterilized). If sterile moths cannot compete with wild moths, successful mating will not be disrupted and the LBAM will continue to flourish.

In the Pink Bollworm program, the control efforts include crop destruction to remove all hosts from the program area, daily sterile moth distributions from April to October, and occasional pheromone treatments. CDFA Pink Bollworm Program Details http://www.cdfa.ca.gov/PHPPS/ipc/pinkbollworm/pbw_hp.htm (last visited September 18, 2009). Despite these efforts, the Pink Bollworm is merely suppressed to "infestations below economic impact levels." *Id.* This program has been ongoing since 1967—42 years—*with no end in sight.*

Additionally, the theoretical eradication of Med Fly infestations by SIT is questionable; the state's cyclical *eradication* declarations and quarantine *outbreak* declarations indicate that these declared eradications do not reflect the persistence and resilience of the Med Fly populations within California. J.R. Carey, Establishment of the Mediterranean fruit fly in California. 253 Science, 1369, 1373 (1991).

For these reasons, reliance on SIT to eradicate LBAM is speculative at best, and hugely wasteful and harmful at worst. The DPEIR's failure to disclose the foregoing studies and facts that contradict its facile projections of eradication success misleads the public and thwarts achievement of CEQA's goal of full and fair environmental disclosure.

2. Mating Disruption Is Not Effective For Complete Eradication of Target Species.

Despite the CDFA's claim that all program alternatives will be effective in eradicating the LBAM from the State of California, CDFA does not cite any scientific data that indicates that mating disruption is an effective *eradication* tool, as opposed to a control tool. In fact, CDFA admits in an appendix that "[p]heromone disruption has not been used to eradicate any moth population." Appendix H, H-6.

Existing science shows that eradication of LBAM is impossible. For example, an Australian study of LBAM mating disruption found that Isomate is an effective way to *reduce* populations, but it could not *eradicate* the insect. J. Mo, *et al., Evaluation of Mating Disruption for Control of Lightbrown Apple Moth (Lepidoptera: Tortricidae) in Citrus* 99(2) J. ECON.

ENTOMOL. 421 (2006). In the first trial, the authors estimated that twist ties created a greater than 50% reduction in the presence of LBAM. *Id.*, at 425. The authors point out that in the subsequent trials, the sustained high temperatures of the summer – not the mating disruption – were likely to be the cause of the low trap catches. *Id.* Although the sentinel females in the studies did not mate, some of the traps within the treatment blocks continued to catch moths, and there was still a small segment of damaged fruit attributed to the LBAM in the test fields. *Id.*, at 422. Mating disruption may reduce the populations of moths, even below levels of economic significance. However, this is not the same as eradication, as CDFA has made clear. *See, e.g.*, § 16.2, p. 16-1. Therefore, CDFA has failed to demonstrate how this program alternative will achieve its eradication goal.

3. Parasitic Wasp Releases Create Population Reductions Without Eradicating the Target Species.

As stated above, the DPEIR asserts that all program alternatives will be effective in eradicating the LBAM from the state. This claim is baseless. As CDFA acknowledges in an appendix, while inundative parasitic wasp releases will attack a wide range of Lepidopteran species, and will successfully reduce the number of LBAM eggs that can mature to adulthood, this method alone cannot eradicate the LBAM. Appendix H, H-7. Moreover, because the wasps will target non-LBAM species, this method is highly inappropriate for widespread use, as CDFA acknowledges—again in an appendix. *Id.*

4. The Use of Organically Approved Pesticides or Male Moth Attractant As Described in the Program Alternative Description Would Be Equally Ineffective

The DPEIR's assumption that all program alternatives will be effective in eradicating the LBAM does not address, and is refuted by, the realities of attempted eradication programs. *Bacillus thuringiensis kurstaki*, ("Btk"), Spinosad and MMA are inappropriate LBAM eradication tools, due to their inability to effectively eradicate LBAM, and their environmental risks. For example, in one study of Btk's efficacy in killing LBAM larvae, no more that 80% of larvae exposed to Btk treated leaves died; this held true regardless of Btk doses. p. Bailey, *et al.*, *Field Efficacy and Persistence of Bacillus thuringiensis var. kurstaki Against Epiphyas postvittana (Walker) (Lepidoptera: Tortricidae) in Relation to Larval Behavior on Grape Leaves*, 35 AUST. J. ENTOMOL. 297, 298 (1996). Similarly, a New Zealand MMA study found that MMA could suppress LBAM populations at a mix of 6% permethrin and LBAM pheromone, but again this study did not achieve eradication. D.M. Suckling, E.G. Brokerhoff, *Control of Light Brown Apple Moth (Lepidoptera: Tortricidae) Using an Attracticide*, 92(2) J. Econ Entomol. 367, 369 (1999). Instead, the authors observed between a 67% and 69% reduction in trap catch; male moths were not completely eradicated from the test area.

Spinosad is an inappropriate eradication tool as well. LBAM and other insects develop resistance to Spinosad, rendering it ineffective over time as a pest control measure. § F2.3.5, p. F2-9. For this reason, Appendix F includes projected limits to Spinosad application. *Id.* However, these limits are not disclosed and discussed as they should be in the DPEIR's Spinosad impact analysis.

Although widespread use of MMA, *Bacillus thuringiensis kurstaki*, or Spinosad could reduce the number of LBAM within the state, thorough analysis of environmental risks of each pesticide control option as the sole treatment has not yet occurred. Additionally, the dangers posed to other plants and animals and air and water quality inherent in treating forested and other remote areas using these methods, and their collateral damage to non-LBAM species, make reliance upon any of these measures environmentally unacceptable.

For these reasons, these program alternatives are neither feasible nor acceptable LBAM eradication options. The DPEIR fails to disclose this fact, contrary to CEQA Guidelines sections 15126.6 and 15384(b).

5. CDFA Has Provided No Data Showing that Eradication Will Occur Under the Program, Even With All Program Alternatives Used.

CDFA never explains how the program, as a whole, will operate, much less how it would effectively achieve eradication. Instead, it merely states that "[t]he Program anticipates using all of the chemical and non-chemical alternatives (and options) in combination as part of an integrated pest management Program. However, should any one alternative become infeasible for effectiveness or economic or environmental reasons, the other alternatives would be used." § 2.3, p. 2-2. The DPEIR's failure to specifically describe the overall operation of the proposed Program Alternatives, much less demonstrate their effectiveness, defeats CEQA's mandate that the project and its alternatives be fully described. CEQA Guidelines §§ 15124, 15126.6. Accordingly, CDRA's selection of the Program Alternatives over other rejected alternatives is fatally flawed. *See* Appendix H.

V. BY ASSUMING PROMPT ERADICATION, THE DPEIR UNDERSTATES THE IMPACTS ON THE ENVIRONMENT OF ALL PROGRAM ALTERNATIVES.

The DPEIR assumes that all LBAM will be eradicated from the state by 2015. §§ 2.2, 2.3, pp. 2-1, 2-2. There is no factual basis for this assumption, as none of the treatment methods considered has ever eradicated an insect as widely established and resilient to treatment as LBAM. Because of that improbable assumption, the DPEIR overlooks the probable continued use of each program alternative long past the projected eradication date, substantially understating its impacts. For example, Appendix D's Human Health Risk Assessment analyses of chronic exposure to the various program chemicals assumes that exposure would end at the

program termination date of 2015. Table D4-11, § D4.3.2, p. D4-11. Additionally, the DPEIR's assessment of greenhouse gas emissions assumes that the project will not impact the State's ability to meet its 2020 emissions goals because the project will no longer be creating emissions in 2020. *See, e.g.*, Table 13-7, §13.2.10, p. 13-25. These points are discussed below.

Every impact examined by the DPEIR assumes the program eradication time-line will be accurate. *See, e.g.*, § 3.2.9, p3-35 - 3-36 (describing the impacts of the program alternatives as limited as they will last only "until the LBAM is eradicated"). By failing to acknowledge the possibility that the eradication program could fail, the DPEIR does not address the reasonably foreseeable additional exposure to chemicals, noise and emissions, that would arise out of the program's extension. For example, the greenhouse gas emissions analyses conclude that the program alternatives would not prevent California from meeting its 2020 emissions reduction goals because "[t]he generation of GHG emissions would be temporary as the emissions would terminate with the completion of the program before 2020 . . . ." § 13.2.4.1, p. 13-20; § 13.2.4.2, p. 13-21; § 13.2.4.3, p. 13-21; § 13.2.5, p. 13-22; § 13.2.6, p. 13-22, § 13.2.7, p. 13-23; §13.2.8, p. 13-23. Additionally, the DPEIR's analysis of the program's chronic exposure of humans and the environment likewise assumes the program's success. *See, e.g.,* Table D4-1, § D4.3.2, p. D4-11 ("the exposure duration is based on the currently-proposed length of the LBAM eradication program, which is scheduled to begin in 2009 and extend through 2015"). For this reason, the DPEIR's fails to provide a complete, accurate and realistic analysis of the impacts of the program alternatives, contrary to CEQA Guidelines section 15126.6.

VI. THE DPEIR'S DISCUSSION OF PROGRAM ALTERNATIVES CONTAINS SERIOUS FLAWS PREVENTING A REASONED CONSIDERATION OF THEIR ENVIRONMENTAL IMPACTS

1. Alternative MD-1 Isomate Twist-Ties

The DPEIR fails to adequately address the impacts of the first mating disruption ("MD") alternative, Isomate Twist-Ties. Instead, CDFA assumes that MD-1's impacts will be slight without providing analysis or facts to support this assumption, as the following examples demonstrate.

First, the DPEIR's conclusions regarding MD-1's impacts on aquatic resources, at section 9.2.4.1, claim to be based on analysis included in "Appendix F, Section 12.3," without providing any more specific citations. § 9.2.4.1, p. 9-13.[1] But section 12.3 does not exist, either within Chapter 12, or in Appendix F. Second, the DPEIR concludes that the twist-ties pose no impact to aquatic resources due to their inclusion of the pheromone, yet it fails to analyze the impacts of

[1] Chapter 10 and Chapter 14 also include mysterious references to section 12.3, as well as section 8.3, despite their non-existence. § 10.2.9, p. 10.29; § 14.8, p. 14-9.

the ultra-violet blocking and anti-oxidizing chemicals that comprise 5% of the chemical mix inside each plastic twist-tie. § 9.2.4.1, p. 9-12, 9-13.

Third, the MD-1 analysis lacks any support for its conclusions regarding the twist-ties' ingestion risks. As mentioned in the scoping sessions, pet owners are greatly concerned regarding the risks of feline exposure to Program chemicals. Instead of addressing this concern, the DPEIR concludes that while birds have some risk of obstruction due to ingestion, no ingestion impacts would occur in terrestrial mammals. §10.2.4.1, p. 10-18. The DPEIR notes that it did not study the impacts of ingestion because it considered the occurrence "improbable." § 12.2.4.1, p. 12-48. For that reason, Chapter 10, Chapter 12 and Appendix F's analyses of ingestion risks posed by the various program alternatives do not even address the potential ingestion of the twist-tie products. *See, e.g.*, Table 12-9, §12.2.2.3, pp. 12-28 to 12-43. Yet cats ingest birds and rodents, which in turn eat moths and other insects that would be attracted to the ties. The DPEIR's finding of no significant impact for terrestrial ingestion of twist ties cannot be supported by the record, as the DPEIR does not even address this potential impact. *See, e.g.*, F3.2.9, p. F3-61. It also appears that chronic exposure of animals to the twist ties has never been evaluated, as "chronic tests were not required because no adverse human effects were expected." *Id.* Additionally, the DPEIR apparently applied significance findings from alternatives MD-2 and MD-3 to MD-1 instead of independently evaluating MD-1. § 12.2.4.1, p. 12-48.

Although the twist ties are supposed to be removed as part of the program, the potential for some twist ties to be overlooked or fall prior to removal was not addressed by the DPEIR. Any impacts that could occur from stray twist ties lost in the program area have not been addressed, including their environmental fate. *See, e.g.* F3.2.9 *et seq.*, p. F3-61. Additionally, the analysis of MD-1's impacts to aquatic organisms in Appendix F appears to include analysis of Hercon Bio-Flake instead of Isomate Twist-Ties. Table F3-41, § F3.2.9.1, p. F3-61.

For these reasons, the DPEIR's findings of no significant impact posed by the MD-1 to terrestrial and aquatic resources and ecological health are not supported by the evidence. § 9.2.4.1, Impact AR-1, p. 9-13; §10.2.4.1, Impact TR-3, Impact TR-4, p10-18; § 12.2.4.1, Impact ECO-1, Impact ECO-2, Impact ECO-3, Impact ECO-5, Impact ECO-9, Impact ECO-10, pp. 12-48 to 12-50.

2. Alternative MD-2 Ground Application

According to the DPEIR, Alternative MD-2 will pose no significant unmitigable impacts. This finding overlooks significant gaps and flaws in CDFA's analysis of MD-2's ground application of Hercon Bio-Flake and SPLAT. We identify several below.

First, the analyses of the ground application of Hercon Bio-Flake and SPLAT fail to address the inert ingredients in both MD-2 products and the Micro-Tac or Micro-Tac II adhesives

and any applicable thickeners that would be used in the application of the Hercon Bio-Flake. Although Appendix F purports to address these compounds, it is apparent that CDFA failed to substantively analyze them.

Second, CDFA failed to properly analyze Hercon Bio-Flake, as opposed to Hercon Micro-Flake, within the Ecological Risk Assessment at Appendix F. *See, e.g.,* F3.2.1, p. F3-37.[2] Appendix F's description of the Hercon product alternates between that of Micro-Flake, which is made of plastic, and Bio-Flake, which is made of biodegradable starch. *Id.* As such, it is unclear whether the DPEIR examined the environmental impacts of the product that will be used in the eradication program. The DPEIR's findings of no significant unmitigable impacts from MD-2 or MD-3 based on this analysis of Hercon Bio-Flake are therefore flawed. § 9.2.4.2, pp. 9-13 to 9-14; § 9.2.4.3, pp. 9-14 to 9-15; § 10.2.4.2, p. 10.19; § 10.2.4.3, pp. 10-20 to 10-21; § 11.2.4.2, p. 11-23; §11.2.4.3, p. 11-24; §§ 12.2.4.2 *et seq.*, pp. 12-51 to 12-55; §§ 12.2.4.3 *et seq.*, pp. 12-55 to 12-58.

Third, the DPEIR assessments of Hercon Bio-Flake and SPLAT fail to address the impacts that could occur as the products break down in the environment. In SPLAT, once the product hardens and has adhered to the target surface, it is supposed to remain as an effective emitter of pheromones for up to 6 months. F3.2.6, p. F3-55. The theoretical analysis of this product's environmental impact does not actually indicate what happens to it after all the pheromones are gone. *Id.* One is left with the impression that small daubs of no-longer effective SPLAT will cover the trees and telephone poles to which it is applied for a significant amount of time, at a density of up to 1,200 daubs per square mile. § 2.3.2.2, p. 2-10. Hercon Bio-Flake, on the other hand, theoretically degrades. However, the DPEIR does not address whether its degradation materials will have impacts to the environment such as increased algae-bloom from run-off, as was the case for Checkmate.[3] As Hercon bio-flake's degradants have not been

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[2] "Following the release of its pheromone component, the remaining product consists mainly of inert polymer ("plastic") that is very stable and can remain in the environment for many years . . . . Eventually only small particles of inert polymer will remain in the soil debris (Hercon 2007b). No information on the soil half life was identified." § F3.2.1, p. F3-37.

[3] Checkmate's inert ingredients include ammonium phosphate and polyurea. § F3.2.4.1, p. F3-48. Urea and other ammonium-based run-off components are known to increase the risk of algae-blooms as they increase the quantity of nitrogen in the ocean, an algal food source. Raphael M. Kudela, et al., The Potential Role of Anthropogenically Derived Nitrogen in the Growth of Harmful Algae in California, USA, 8 Harmful Algae,103 (2008). In 2007, subsequent to the aerial spraying of Checkmate products, a red-tide caused by such an algae bloom created foam which proved deadly to many sea-birds. D. Jessup, et al., Mass Stranding of Marine Birds Caused by a Surfactant- Producing Red Tide, 4 PlosONE e4550 (2009).

disclosed or examined, the DPEIR's conclusion that MD-2 will produce no unmitigable impacts to water, aquatic or terrestrial resources, or ecological health, is unfounded. § 9.2.4.2, Impact AR-3, AR-4 pp. 9-13, 9-14; § 10.2.4.2, Impact TR-9, Impact TR-11, pp. 10-19, 10-20; § 10.2.4.2, Impact WR-2, p. 11-23; § 12.2.4.2, Impacts ECO-12 to ECO-22, pp. 12-51 to 12-55.

3. Alternative MD-3 Aerial Spraying

The DPEIR program description fails to clearly explain the parameters of Alternative MD-3, the aerial application of pheromone products. The DPEIR alternatively states that aerial application would only be considered in "undeveloped regions,"[4] "agricultural and undeveloped areas,"[5] areas that are "essentially unpopulated"[6] or "essentially unpopulated portions of 57 of 58 counties."[7] Further, while presenting the five alternatives to the public, Susan Hootkins of Entrix indicated that MD-3 would occur in "substantially undeveloped areas." Public Hearing and Comment Meeting, Oakland CA, (September 1, 2009).

Without a proper definition of the proposed parameters of an appropriate MD-3 application area, neither CDFA nor the public can comprehend the full scope or impacts of this alternative. CDFA intends to aerially apply pheremones in all but one county, and in context it is not clear which county is excluded from this plan. Appendix C1 § C4.1, p. C4-1.

This inconsistent and undefined program description prevents any clear analysis of this alternative. It is impossible to quantify even the potential percentage of the state's area that could be considered for spraying if the aerial spraying of pesticides were to occur. Without a clear definition of the possible project area, it is impossible to even quantify the extent of this alternative's impacts. For these reasons, among others, the DPEIR's findings of no significant unmitigable impact caused by MD-3 are not supported by the evidence, and violate Public Resources Code sections 21081 and 21081.5 and CEQA Guidelines sections 15091, 15124 and 15384(b).

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[4] Table 2-3, p. 2-9; Table 11-3, p. 11-20; Appendix C1, Table C-2, p. C2-3 (duplicated at Appendix C1 Attachment 1 Table C-2).

[5] § 2.3.2.3, p. 2-11; § 4.2.4.3 p. 4-9; § 5.2.4.3 p. 5-32, § 7.2.4.3 p. 7-8; § 10.2.4.3, p. 10-20; § 12.2.4.3, p. 12-55; Appendix C1 § C2.2.2.3, C2-5.

[6] § 4.2.4.3, p. 4-9; § 5.2.4.3, p5-31; § 6.2.2.1, p. 6-20; § 6.2.2.1, p. 6-21; § 6.2.4.3 p. 6-45; § 6.2.4.3, p. 6-46; Table 6-17, p. 6-56; § 7.2.4.3, p. 7-8; Appendix C1 § C3.1.; Appendix C1 § C3.1.1, p. C3-2; Appendix G § G1.2, p. G1-1.

[7] Appendix C1 § C4.1, p. C4-1.

Alternative MD-3 would spray the targeted areas with either SPLAT or Hercon Bio-Flake mixed with some sort of proprietary adhesive. The Ecological Assessment of these products in Appendix F fails to properly address their environmental fate, as mentioned above. SPLAT, having been aerially sprayed over large forested areas where it will not readily degrade, might remain where it lands for extended periods. The DPEIR's failure to address this issue undermines its claim that there will be no non-noise related impacts to terrestrial resources. Further, as previously mentioned, the DPEIR's analysis of Hercon Bio-Flake is fatally flawed. For these reasons, the DPEIR's MD-3 findings cannot stand.

Additionally, Appendix C's MD-3 Air Quality Impact analysis contains flaws. These flaws include the assumption that aerial application of pheromone products would occur at the lowest proposed elevation. § C3.1.1 p. C3-2. Although this modeling assumption may increase the maximum concentration of deposited materials for the purposes of analyzing volatilization, this assumption fails to address increased risks of drift to non-target areas and the effect that higher elevations may have on SPLAT droplet size. This failure is significant as the Ecological Exposure Assessment and the Human Health Risk Assessments both rely upon the modeling performed in Appendix C to predict the rates of human and environmental exposure to the Program chemicals. *See, e.g.,* Appendix D Executive Summary, p. D1-2; §F.4.1, p. F4-1.

Alternative MD-3's air quality analysis in Appendix C also fails to address any potential emissions from the Micro-Tac II adhesive that would be used with the Hercon Bio-Flake product, or the potential for the adhesive to aerosolize independently of the pheromone product during aerial spraying. According to Appendix F, Micro-Tac, as opposed to Miro-Tac II, consists of vinyl-acetate/vinyl-alcohol copolymer, *which could cause irritation upon inhalation.* As the DPEIR alternatively refers to Mirco-Tac and Micro-Tac II, it is not clear which product would be used.

For the above reasons, the DPEIR's analysis of MD-3 is insufficient to support its findings of no significant unmitigable impacts, contrary to CEQA Guidelines sections 15091, 15126.2 and 15384(b).

4. MMA Alternative

In Chapter 2, at Section 2.3.3, the Male Moth Attractant Alternative use and application method is described as "the pheromone, the permethrin, and inert ingredients (SPLAT)." DPEIR at 2-11. The DPEIR appears to indicate that the MMA Alternative will consist of SPLAT plus permethrin in Chapter 5, at Section 5.2.5.2 and Chapter 8 at Table 8-6 and at Section 8.2.5.[8] Yet the toxicology assessment of MMA, on which much of the DPEIR's findings are based, indicate

[8] "In Alternative MMA, the pheromone formulation SPLAT would be applied with Permethrin E-Pro to attract and kill LBAM." 8.2.5, p. 8-39.

that MMA will "consist of the use of either Min-U-Gel® or a paraffin wax material to deliver a 1.0% concentration of the LBAM pheromone and a 6.0% concentration of permethrin. The application method consists of using ground-based equipment to apply a gel material to telephone poles and trees using a metered hand-held wand." Appendix F, F3.3 at p. 3-62.

As the formula description and the application methodology of the MMA alternative are not consistently described or detailed between sections of the DPEIR, it is unclear which sections, if any, are accurate in their examination of the environmental impacts of this alternative. The toxicology data in Appendix F is the underpinning for all findings regarding the potential terrestrial and aquatic impacts of MMA. *See, e.g.*, § 10.2.2, p. 10-13; § 11.2..2, p. 11-18, Chapter 12, p. 12-1. The DPEIR's human health risk assessment is based on Appendix D, which does not address the same substances. *See, e.g.,* § D2.2.3, p. 2-4. Because of these discrepancies, it is unclear whether CDFA knows which formulation it plans on using. It is clear, however, that the impacts of CDFA's chosen MMA method have not been thoroughly analyzed under this DPEIR, contrary to CEQA Guidelines sections 15126, 15126.2 and 15384(b).

Despite a statement in Chapter 8, at Section 8.2.1 that the Human Health Risk Assessment (Appendix D) would address the additive effects of MMA's component chemicals, the analysis included in Appendix D only addresses the potential impacts posed by the permethrin and its inactive ingredients, without the addition of the mating disruptor or its inert ingredients. CDFA's failure to examine the additive effects of the permethrin mixed with SPLAT disregards the potential for unanticipated synergistic effects when these chemicals are mixed together. Without addressing the inert ingredients found within SPLAT, CDFA cannot conclude that they will fail to interact with the permethrin. For this reason, the DPEIR fails to fully address the human health risks of MMA.

Although the general animal toxicological analysis of permethrin is included in Appendix F, the DPEIR fails to address the impacts of direct MMA contact on squirrels and other animals that frequent telephone poles and trees. Instead, the DPEIR indicates that no impacts would occur, as the application height of 8 feet would minimize wildlife exposure risks, even to birds. *See, e.g.*, §§ 12.2.5.3, 12.2.5.4. This fails to acknowledge that birds, squirrels, cats and other creatures do not limit themselves to the ground. Squirrels are likely to have direct contact with the MMA chemicals as applied. As these impacts have not been properly examined, the findings of no significant impacts to terrestrial and avian wildlife violate Public Resources Code sections 21081 and 21081.5 and CEQA Guidelines sections 15126, 15126.2 and 15374(b) and therefore cannot stand. *See, e.g.*, § 10.2.5, pp. 10-22 - 10-24; § 12.2.5 *et seq.*, pp. 12-58 to 12-62.

Additionally, although Mitigation Measure AG-10 indicates that MMA will not be applied "on or adjacent to organic farming operations," it is not clear how CDFA defines "adjacent." § 3.2.5.5, p. 3-31. Further, it is not clear whether CDFA will only avoid farms which have obtained their official USDA certification, or if it will also avoid farms that are

striving toward certification but are still within the 3-year "allowed practices" phase. *See* 3.1.33, p. 3-8. As many local communities and homeowners maintain pesticide free gardens but do not participate in the USDA organic program, as they do not sell their products, it is not clear how CDFA will protect the needs of these groups. *See, e.g.*, City of Oakland Community Gardens Rules, http://www.oaklandnet.com/parks/programs/communitygardening_rules.asp?cgr=9, last visited 9/24/09; City of Emeryville Community Organic Gardens, http://www.ci.emeryville.ca.us/index.aspx?NID=738, last visited 9/24/09; City of Long Beach Community Gardens, http://www.longbeach.gov/park/recreation/cultural_programs/gardens.asp, last visited 9/24/09; Santa Cruz Homeless Garden Project, http://www.infopoint.com/sc/orgs/garden/, last visited 9/24/09; Community of Isla Vista Estero Park, http://www.ivparks.org/district%20parks/district.html, last visited 9/24/09. As the DPEIR does not clearly define the mitigations encompassed by this mitigation measure, it violates Public Resources Code sections 21002 and 21081.6 and CEQA Guidelines sections 15091, 15126.4 and 15384(b), and is thus inadequate to mitigate the impacts of MMA to organic farming.

The DPEIR incorrectly asserts that although MMA could expose terrestrial and aquatic wildlife to its component chemicals were it to spill, "no significant impacts would occur." § 10.2.5, Impact TR-22, p. 10-23; *see also* § 12.2.5.11, Impact ECO-44, p. 12-52. This claim is belied by permethrin's known toxicity and MMA's potential to adhere quickly to any potential spill location. CDFA justifies this finding because "MMA formulations do not elicit toxicity in the tests that have been conducted to date on standard aquatic species, [and thus] it is unlikely that a spill of these formulations would lead to an adverse effect, regardless of the increased potential for a spill to occur." § 12.2.5.11. But this reasoning ignores the risk of permethrin spillage prior to its incorporation within the chosen moth attractant formula, or during the pre-application mixing process when the permethrin product may separate from the other components. As SPLAT must be mixed immediately prior to application, per its label instructions, it is likely that the permethrin could be incorporated into the product at this time. ISCA Technologies, Inc., SPLAT LBAM-HD, Product Label, approved 6/8/2009. It is not clear whether the toxicity assessments addressed the formula which would be used under the MMA Alternative. It is clear, however, that permethrin "is highly toxic to fish and other aquatic resources, including frogs. It can be toxic at very low levels in the environment (ìg/L) for short durations." § 9.2.5, p. 9-15. These discrepancies undermine CDFA's finding of no significant impacts, contrary to Public Resources Code sections 21081 and 21081.5 and CEQA Guidelines sections 15091 and 15384(b), and therefore cannot stand. *See, e.g.*, § 7.2.5, p. 7-9; § 9.2.5, pp. 9-15 to 9-16, § 12.2.5.8, p. 12-61.

As with SPLAT, above, the analysis of the impacts of MMA fails to address its environmental fate. Instead the analysis states that "[t]he potential for environmental exposure is extremely low since the applications cannot drift or move off site from runoff due to the application method and the fact that the materials are considered to be rainfast once set . . . ." F3.3.1.2, p. F3-63. Although it is not clear that this refers to the proper MMA product, it appears

that all potential MMA formulas pose the same problem; they will not go away after the program ends. The DPEIR improperly dismisses this impact as purely an aesthetic concern that warrants no further discussion, as the program alternative "would blend in with the utility poles where it would be applied . . . ." § 1.7, p. 1-50.

The DPEIR also fails to comprehensively address the programmatic use of MMA throughout the program area. For example, the DPEIR's analysis of the cumulative agricultural impacts of the program caused by MMA concludes that "any disruption to pollinators/honeybees and pollination would be highly localized to the treatment area and temporary, lasting only during the eradication period; therefore, from a cumulative perspective the impact would be less than significant." § 14.1, p. 14-2. This conclusion fails to acknowledge the full scope of the MMA alternative. Using just the current LBAM quarantines, for example, a conservative estimate of populated quarantine areas within the Bay Area quarantine could receive between 450 and 900 liters of MMA, every 60 days until two consecutive life-cycles periods have occurred without any LBAM detections. § C2.2.3, pp. C2-6 to C2-7; 3 CCR § 3434.[9] This translates to between 2,700 and 5,400 liters of MMA per year, for just a small portion of the statewide project area.

For all these reasons, the DPEIR's assessment of the lack of non-mitigable impacts posed by MMA to Air Quality, Terrestrial and Aquatic Resources, Human Health, and Ecological Health violates Public Resources Code sections 21002, 21081 and 21081.5, and CEQA Guidelines sections 15091, 15126, 15126.2 and 15384(b).

5. The Use of Organically Approved Insecticides

The DPEIR fails to adequately address the risks of the programmatic use of organically approved insecticides. The use of *Bacillus thuringiensis kurstaki* (Btk) and Spinosad pose significant and unaddressed risks to the environment, as discussed below.

The Btk analysis fails to fully address the outcome of its persistence in the environment. Btk can linger and persist in shady environments long after its initial application, and according to the DPEIR will persist in the soil at application locations for up to one year. § 12.1.2.2, 12-9. Yet, the DPEIR fails to address the potential for Btk to affect non-target species long after the program application occurs. Further, a study of Btk use in Canada indicates that Btk can be tracked into homes and linger; without UV exposure Btk remains active. K. Teschke, *et al., Airborne Exposures to Bacillus thuringiensis var. kurstaki During Gypsy Moth Eradication,* Final Report to the Capital Health Region, ii, 24 (2000). Further, in a study of Btk use with

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[9] This quantity is calculated using an application density of between 600 and 1200 dollups per square mile, and 5 mL of MMA per dollup, and conservatively estimating 1000 sq. miles of non-aerially treatable target area. § C2.2.3, p. C2-6.

LBAM larvae, Btk remained on shaded leaves throughout the length of the study time, in contrast to the 50% reduction in effective crystals in sun-exposed leaves. p. Bailey, *et al.,* Field Efficacy and Persistence of *Bacillus thuringiensis var. kurstaki against Epipyas postvittana (Walker) (Lepidoptera: Tortricidae) in Relation to Larval Behavior on Grapevine Leaves*, 35 Aust. J. Entomol. 297, 299.

Additionally, the DPEIR's 25 foot buffer between organic pesticide application locations and water bodies is insufficient to protect aquatic resources. Although the DPEIR claims that strong bonding with the soil will prevent these products from entering the water table or these water bodies, these products, especially Btk, pose runoff risks. In a Canadian assessment of Btk use in forestry, the authors determined that Btk does run off; once introduced to lakes, it could persist for more than 70 days. G. A. Surgeoner, M. J. Farkas, *Review of Bacillus thuringiensis var. kurstaki (Btk) for Use in Forest Pest Management Programs in Ontario - With Special Emphasis on the Aquatic Environment* (1990). Btk's ability to remain active within such environments increases the likelihood that non-target Lepidoptera will become exposed to this product, even in areas away from the application site.

The DPEIR downplays the risk that Btk poses to non-target species. Btk is an effective pesticide because it interacts with the very alkaline environment inside the guts of insects. It can attack other lepidopteran species, and ostensibly can also attack other insects with similar digestive environments. Its manufacturers contend that Btk is effective only on a small range of insects, as Btk breaks into smaller toxins within the insect gut, and "each toxin needs a specific receptor site" within the insect for it to be effective. Valent BioSciences Corp., *Protecting Our Forests – Protecting Our Future: Forestry Manual* at http://www.valentbiosciences.com/docs/pdfs/forestry_and_public_health/manual.pdf. As CDFA has not addressed whether it is aware of the specific biology of the non-target insects within the program area, it is not clear the extent to which these products will affect non-target species.

Additionally, the DPEIR fails to properly address the issues of Spinosad resistance in its description of the organically approved pesticide alternative or its mitigation measures, as mentioned above. *See, e.g.*, Table 2-5, § 2.3.4. p. 2-13 (Spinosad to be applied every 14 days). Despite Appendices D and F's statements that Spinosad use will be limited to a maximum of 6 applications per location per year, the rest of the DPEIR does not adopt this limit. § D2.2.4.2, p. D2-4; § F2.3.5, p. F2-9. Instead, CDFA determined that after three treatments, the eradication goal will be met, and no additional treatments would occur. § 2.3.4.1, p. 2-13. At the same time, however, the DPEIR states that "[t]reatments would continue until two full life cycles are surveyed without evidence of LBAM detection." *Id.* This confusing description of the treatment program does not prevent the over-use of Spinosad. Even the label of the Spinosad brand Entrust recommends that users avoid using Spinosad "on consecutive generations of insects," suggesting that users either use "a different active ingredient that has a different mode of action or use no treatment for the next generation." Dow AgroSciences, *Entrust Federally Approved Pesticide*

Label, 15 (approved July 15,2008). Pesticide resistance is serious problem; the CDFA's failure to discuss and include clear mitigations limiting Spinosad use renders this program alternative fatally flawed.

The CDFA's analysis of organically approved pesticides also contains flawed assumptions about the risks to non-target species. It assumes that non-target insects affected by Btk and Spinosad applications will be able to recover through migration from outside the treated area. *See, e.g.,* § 10.2.6, p. 10-24; § 12.2.6.7, pp. 12-64, 12-65 (mitigation of non-target population decline is not required because populations will recover). This assumption fails to acknowledge that these products are to be used "where heavier larval populations are detected," in any part of the program area. § 2.3.4.1, p. 2-13. If CDFA detected high larval loads, it could potentially treat a sufficiently large region to significantly reduce the rate of short term non-target species recovery, depending on each species' range.

As the DPEIR does not adequately address the environmental impacts of Btk and Spinosad, its subsequent findings of no significant unmitigable impacts of their use is unsupported, contrary to Public Resources Code sections 21002, 21081 and 21081.5, and CEQA Guidelines sections 15091, 15126, 15126.2 and 15384(b). § 9.2.6.1, p. 9-16; § 9.2.6.2, p. 9-17; § 10.2.6, pp. 10-24 to 10-25; § 11.2.6 *et seq.*, pp. 11-25 to 11-26; § 12.2.6 *et seq.*, pp. 12-62 to 12-66.

6. Problems with SIT

CDFA's reliance upon SIT as the preferred application method is flawed; the DPEIR does not properly examine the risks and impacts that the technology creates. Further, as discussed above, the use of SIT as a lepidopteran eradication tool, as opposed to a control tool, has not been proven.

The current LBAM SIT program is run by the USDA out of its Moss Landing facility, and the moths will be sterilized at the Lawrence Livermore Laboratory; the moths are exposed to a radiation source for the amount of time expected to sterilize the moths without severely compromising their ability to mate. *See generally*, USDA, *Light Brown Apple Moth Sterile Insect Field Evaluation Project in Sonoma and Napa, California Environmental Assessment* May, 2009. In order for the moths to be sterilized, they must be transported from the rearing facility to the laboratory, almost 100 miles away. Wayne Freedman, *New Tools Help Eradicate the Apple Moth*, ABC 7 KGO News, (September 18, 2009), published at http://abclocal.go.com/kgo/story?section=news/state&id=7022073,(last visited September 20, 2009). The DPEIR has not addressed the small but significant risk that the moths could accidentally be released prior to sterilization, while in transit. The risk of fertile insect release is not unheard of. In 2003, one SIT program had "a sterilization accident . . . which resulted in the release of fertile flies [around the facility in Mexico] . . . as well as the transboundary shipment

and aerial release of fertile flies" in multiple treatment locations. Jorge Hendrichs, To the Reader, 60 *Insect Pest Control Newsletter* International Atomic Energy Agency 2 (2003). Additionally, it seems that the medfly program within California has accidentally released fertile insects. Insect Pest Control Section, International Atomic Energy Agency, *Model Business Plan for a Sterile Insect Production Facility* Agency, 158 (2008). Although the likelihood of this accidental fertile insect release may be low, the DPEIR should still consider its impacts as a reasonably foreseeable event as CEQA Guidelines section 15144 requires. Any release of fertile moths could, of course, completely defeat the purpose of the program, and introduce additional environmental impacts.

CDFA is depending on the USDA to select the appropriate dose of gamma radiation to sterilize the moths. USDA indicates that this dose will be "selected by using data from other programs in which adult moths were sterilized." USDA, *Light Brown Apple Moth Sterile Insect Field Evaluation Project in Sonoma and Napa, California Environmental Assessment* 11 (May, 2009). "Published data on the radiation biology of the same or similar species can provide guidance, but, in many cases are of limited value because dosimetric procedures . . . dose distribution, and other pertinent information are often not reported." A. Bakri et al., *Sterilizing Insects with Ionizing Radiation, in Sterile Insect Technique: Principles and Practice in Area-Wide Integrated Pest Management*, at 245 (V.A. Dyck et al. eds., 2005). CDFA has not outlined the methodology it intends to use to test or insure proper gamma ray dosage, including testing dosed moths with non-dosed moths to see if mating is successful. Long term regular monitoring of the moth sterility is critical to "confirm that specified levels of sterility are being achieved." Bakri, *supra*, at 248. Without such assurance, it is possible that CDFA could release improperly dosed moths into the environment.

The DPEIR indicates that under the SIT alternative, only sterile male moths will be released into the wild. *See, e.g.*, § 2.3.6, p. 2-14; 10.2.8, pp. 10-26, 10-27. It is not clear, however, whether the USDA's SIT program is targeting male LBAM for sterilization. *See, e.g.*, Freedman, *supra*; USDA, *Light Brown Apple Moth Sterile Insect Field Evaluation Project in Sonoma and Napa, California Environmental Assessment* (May, 2009).

The moths raised for the SIT program will be fed a red azo dye, known as Calco Red Dye. USDA, *Light Brown Apple Moth Sterile Insect Field Evaluation Project in Sonoma and Napa, California Environmental Assessment* May, 2009, 3-4. This product "accumulates in the integument, fat body, and ovaries of adult moths." *Id.* The dye allows any sterile moths trapped in the monitoring traps used for the eradication program to be easily identified. *Id.* at 3. Each moth will contain up to 0.0132 mg of dye. *Id.*, at A-1. The release of sterile moths in the three square miles of the USDA's test area, for the 27 weeks of the test program, would thus cause 958 grams of Calco Red dye to enter the environment. CDFA's SIT program is on a much wider scale that the small USDA test, and yet *there is no mention of Calco Red in the DPEIR*. This dye's toxicity to terrestrial and air-born insectivores and aquatic resources has not been addressed

in the DPEIR. Its potential to bio-accumulate has also never been addressed. For these reasons, the DPEIR's analysis of the SIT Alternative violates CEQA Guidelines sections 15081, 15081.5, 15126, 15126.2 and 15384(b).

Further, Appendix H, Eradication Tools indicates that CDFA is considering using inherited sterility, or first generation ("F1") sterility, within the SIT element of the LBAM eradication effort. H-24. Although some research indicates that using partially sterilized moths that produce genetically mutated offspring upon mating with wild moths might possibly be an effective way of reducing – but not eradicating – moth populations, the DPEIR does not actually address this method's impacts on the environment. Indeed, its only other mention in the DPEIR indicates that this method is *not* known to be effective at lowering LBAM's numbers, it is *not* known to be effective at controlling other moth pests, and it has *not* been used to eradicate other pests. Table 16-1, § 16.3, p. 16-3. Although the offspring of this method are sterile, the mutated larvae will still eat. Under this method, CDFA would actually be *increasing* the risk of any crop damage that could occur from the existence of LBAM in an area. Any offspring of the mated semi-sterile moths would not have been raised on a dyed diet, and their identification in a trap area would require close scrutiny to avoid false positives. Additionally, any ongoing dose-monitoring programs will also require additional steps in order to insure the sterility of the F1 offspring prior to the moth releases.

The DPEIR also fails to address the risk of SIT resistance, either through asexual reproduction or through evolved preference. Although the risk of *Wolbachia* induced asexual reproduction is considered to be rare in SIT programs, the consequences of such an occurrence are severe enough to warrant investigation and discussion. M. Whitten & R. Mahon, *Misconceptions and Constraints, in Sterile Insect Technique: Principles and Practice in Area-Wide Integrated Pest Management, supra,* 601, 619. *Wolbachia* is a commonly found bacteria in insects, and has been found in other Lepidopterans. *E.g.*, E.A. Dyson et al., *Wolbachia infection associated with all-female broods in Hypolimnas bolina (Lepidoptera: Nymphalidae): evidence for horizontal transmission of a butterfly male killer*, 88 Heredity 166, 168 (2002). Without sexual reproduction, neither SIT nor mating-disruption would be an effective way to control or reduce moth populations and insecticide use might thus increase in areas where moth control is mandated.

In at least two instances, SIT programs have observed an evolved insect resistance to SIT. Lance & McInnis, D.R. Lance & D. O. McInnis, *Biological Basis of the SIT, in Sterile Insect Technique: Principles and Practice in Area-Wide Integrated Pest Management, supra,* 85, Whittin & Mahon, *supra* at 619-620. In these instances, the wild females who mated with wild males instead of sterile males produced offspring which could differentiate and favor wild males over sterile ones. Lance & McInnis, *supra* at 85. Because the evolution of SIT resistant insects would render SIT programs ineffective, it is imperative that the DPEIR discuss the possibility and the resultant impacts of such a resistance.

For the above reasons, the SIT analysis fails to fully address its potential impacts to agriculture and the environment, contrary to Public Resources Code sections 21081, 21081.5, and 21100(b) and CEQA Guidelines sections 15091, 15126, 15126.2 and 15384(b). The DPEIR's findings that SIT poses no significant unmitigable impacts therefore cannot stand. § 3.2.8 *et seq.*, pp. 3-34 to 3-35; § 9.2.8, pp. 9-18 to 9-19; § 10.2.8, pp. 10-26 to 10-27; § 11.2.5 *et seq.*, pp. 11-26 to 11-27; § 12.2.8, pp. 12-68 to 12-70.

VII. THE DPEIR IS PLAGUED BY MANY ADDITIONAL FLAWS THAT APPLY ACROSS ALL PROGRAM ALTERNATIVES.

1. The DPEIR's Cumulative Impacts Analysis is Flawed.

The DPEIR's analysis of the cumulative impacts of the program alternatives is flawed. The DPEIR purports to address the cumulative impacts of the program, at the end of chapters 3 to 13 and in chapter 14. However, it fails to present a comprehensive examination of the cumulative impacts of the project alternatives, taken together, with all similar past and proposed future projects, as required by CEQA Guidelines sections 15126.2, 15130, 15144 and 15384(b). Instead, with regard to each type of environmental impact, the cumulative impact analysis claims that as each impact alone is less than significant, the entire program's impacts will also be less than significant. This segmented approach to examining the alternatives' cumulative effects ignores CEQA's key tenet that the "whole of an action," including its cumulative effects, must be considered together. CEQA Guidelines §§ 15003(h) and 15378(a).

The DPEIR's assessments of program alternative impacts repeatedly fail to examine the combined impacts of multiple program alternatives. For example, the aquatic resource analysis assumes that the treatments would be "stand-alone," despite the program's planned use of "multiple alternative treatments within a given area . . . ." § 9.2.2.2, p. 9-11. Similarly, the DPEIR's analysis of the cumulative impacts to terrestrial resources addresses the impact to non-target lepidopteran species from mating disruption separately from that of MMA, organically approved pesticides, or *trichogramma* wasps, despite the potential that all these treatment alternatives might occur in the same location. § 10.2.9, p. 10-28. The DPEIR's failure to examine how multiple program alternatives will combine to impact specific aquatic or terrestrial resources, as well as human or environmental health, renders its cumulative impacts analysis deficient.

Additionally, the DPEIR's attempts to quantify the total use of each project alternative are flawed. *See, e.g.,* § 12.2.9.2, 12-76, 12-78. The DPEIR's analysis of both organically approved pesticides and MMA failed to address the potential geographical scope of the project. Instead it predicted the total amount of chemicals to be used from now until 2015 by assuming that 12 crews, working 240 days a year, would apply these chemicals at the application rates used for the Air Quality analysis included in Appendix C. *Id.* These application rates of product per acre per

day, however, do not address the total number of square miles that could be treated after eradication fails to occur at the scheduled time. *See* Appendix C, Table C-3, Table C-5. Examining the cumulative effects of multiple and extended treatments as required by CEQA might reveal substantially greater impacts than, for example, the DPEIR's claim that the mating disruption products, *trichogramma* moths and SIT had no impacts at all. The DPEIR's failure to quantify the impacts of long-term use of these program alternatives renders any attempt to address the potentially cumulatively significant program impacts impossible.

Had the DPEIR included a range of potential program impacts, it would provide a more comprehensive and accurate evaluation of those impacts. For example, as of August 25, 2009, the state interior LBAM quarantine encompassed 3,493 square miles. CDFA Finding Of Emergency, August 25, 2009, at www.cdfa.ca.gov/phpps/docs/3434_%20FOE_Add_LongBeachandLosOsos.pdf, (last visited September, 25, 2009). The DPEIR could estimate the total use of each program alternative, assuming both a worst case scenario, and one with no change in quarantine status. Without this analysis, any examination of the program's cumulative impacts is speculative, contrary to CEQA Guidelines sections 15126.2, 15130, 15144 and 15384(b).

In sum, unless CDFA examines the combined effects of the program alternatives, it cannot adequately address whether the program creates cumulatively significant impacts when compared to other past and future projects. Therefore, the DPEIR's conclusion that the program alternatives will pose no significant unmitigable cumulative impacts must be withdrawn.

2. The Public Services and Hazard Response Analysis Is Flawed.

The DPEIR's analysis of public services and hazard responses mistakenly dismisses the potential impacts that could arise from an accidental release. § 7.2.4.1, p. 7-6; § 7.2.4.2, pp. 7-6 to 7-7; § 7.2.4.3, p. 7-8; § 7.2.5, p. 7-9; § 7.2.6, p. 7-10; § 7.2.8, p. 7-12. The DPEIR assumes that the requirements of the California Code of Regulations are sufficient to prevent environmental accidents and ensure safety. *Id.* Therefore, the DPEIR avoids performing any analysis of the public and environmental hazards that a spill might cause. The DPEIR's unquestioning reliance on labeling restrictions and existing regulations to prevent such hazards stands in contrast to its treatment of such regulations in other sections of the DPEIR. *See, e.g.,* § 3.2.3.5, p. 3-24 (despite regulatory standards, NPA pesticide use creates potentially significant impacts to organic farming); § 12.3.2.11, p. 12-48. It appears from this that the DPEIR's analysis is skewed to favor the action program alternatives. The DPEIR's failure to fairly and adequately address the potential damaging consequences of a program alternative spill renders its conclusions of no impact unsubstantiated, contrary to CEQA Guidelines section 15384(b).

3. The DPEIR Understates the Impacts to Non-Target Lepidopteran Species.

As mentioned above, the DPEIR downplays the effects of the program alternatives on non-target lepidopteran species. Its flawed assessment of Btk, Spinosad, MMA and mating disruption products on non-target lepidopteran species assumes that most non-target moths will suffer only minor reductions in population size. First, the DPEIR does not examine the impacts to many California moths which are attracted to LBAM pheromone traps. § 12.2.9.2, p. 12-76. These moths include *Choreutis pariana, Euceratia castella, Pyrausta orphisalis, Athes sp., Choristoneura rosaceana, Dichrorampha simulana,* and *Olethreutes punctana,* which are native to North America, as well as *Oegoconia quaddripunta, Recurvaria nanella, Agonopterix alstroemeriana, Batia lunaris, Acleris holmiana, Acleris variegana, Ditula angustiorana, Epinotia solandriana,* and *Spilonota ocellana.* Eric H. LaGasa, *Non-target lepidoptera species captured in Washington State, in pheromone-traps for Light Brown Apple Moth*, Washington State Department of Agriculture (date unknown). Due to the expansive nature of the eradication program, and the large number of affected moth species, the total impacts to non-target moths will be much higher that the DPEIR admits.

Second, the DPEIR assumes that impacted moths are insignificant, discounting their contribution to their ecosystems, simply because they, like all humans, sometimes use or consume agricultural resources. The DPEIR also discounts the program's impacts to lepidopteran insectivores – which will increase in severity and move up the food chain to birds, bats and beyond – as moth populations decline under the program. As the DPEIR fails to adequately address these impacts, its conclusion that the program will have no significant impacts to non-target lepidopteran species is unsupported, contrary to CEQA Guidelines sections 15126.2, 15130 and 15384(b). § 10.2.4.1, p. 10-18; § 10.2.4.2, p. 10-19; § 10.2.4.3, p. 10-21; § 10.2.5, pp. 10-22, 10-23; § 10.2.6, pp. 10-24, 10-25; § 10.2.7, p. 10-26; § 10.2.9, pp. 10-27, 10-28; § 12.2.4.1, p. 12-50; § 12.2.4.2, p. 12-53; § 12.2.4.3, p. 12-56; § 12.2.5.7, pp. 12-60, 12-61; § 12.2.6.7, pp. 12-64, 12-65; § 12.2.7.7; p. 12-67; §§ 12.2.7.10, 12.2.7.11, p. 12-68; § 12.2.9, pp. 12-75 to 12-79; § 14.8, pp. 14-9, 14-10; § 14.10 *et seq.*, pp. 14-10 to 14-15.

4. Chapter 5's Noise Impact Analysis Fails to Adequately Address Potential Noise Impacts and Proposes Insufficient Mitigation.

The DPEIR's noise impact analysis is equally deficient. It fails to identify existing baselines or sensitive receptors, or conduct any evaluation of potential noise impacts in a site specific manner, contrary to CEQA Guidelines sections 15124, 15125, 15126.2 and 15384(b). § 5.2.2.2, p. 5-26. Although it outlines the various noise standards that apply throughout the state, it does not address whether specific program activities could conflict with such standards. The DPEIR acknowledges that many of the program alternatives will exceed noise standards, but assumes that these violations will be exempt in all instances. *See, e.g.*, § 5.2.4.2, Impact N-3, p. 5-30. Although the DPEIR proposes mitigation to reduce substantial temporary increases in

noise levels, it does not establish that the mitigation measures will sufficiently reduce noise impacts, contrary to Public Resources Code section 21081.6 and CEQA Guidelines section 15126.4. *See, e.g.*, § 5.2.4.2, Impact N-4, pp. 5-30, 5-31 (Mitigation Measure N-4d provides for a nuisance complaint hotline).

Additionally, the DPEIR states that all noise impacts on federal lands will be evaluated based on the Bureau of Land Management ("BLM") noise standards, even though both the US Forest Service ("USFS")and the National Park Service ("NPS"), among other federal agencies, also manage substantial lands within the program area. §5.1.5.1, p. 5-12; Table 4-2, p. 4-3. Further, the DPEIR does not address how any of the program alternatives will create, and mitigate, noise impacts on federal land.

As the DPEIR does not actually analyze the true noise impacts of any of the program alternatives against any baselines or noise standards, its conclusions of no significant unmitigable noise impacts cannot be supported, contrary to CEQA Guidelines section 15384(b). § 5.2.14.1, p. 5-28; § 5.2.4.2, pp. 5-29 to 5-31; § 5.2.4.3, pp. 5-31 to 5-33; § 5.2.5, pp. 5-37, 5-38; § 5.2.6, pp. 5-38, 5-39; § 5.2.7, pp. 5-39 to 5-40; § 5.2.8, pp. 5-40, 5-41, § 5.2.9, p. 5-41.

5. The DPEIR's Air Quality Analysis Is Incomplete.

The DPEIR's air quality impact analysis is both flawed and incomplete. First, the DPEIR's air quality impacts analysis relies on extensive emissions evaluations that are not included in the published version of the DPEIR. *See, e.g,* Appendix C2, § C5.2, p. C 5-3 (calculations regarding pollutant emissions from program equipment and the treatment applications are in Attachments C-1 to C-4). Attachment C-1 should have addressed the criteria pollutant emission calculations for offroad equipment, Attachment C-2 should have examined the criteria pollutant emission calculations for onroad vehicles, Attachment C-3 should have assessed the criteria pollutant emission calculations for airplanes, and Attachment C-4 should have included the droplet evaporation analysis for hydraulic spraying. Appendix C2, p. Cii. As these attachments were not included in the DPEIR, it is impossible to determine whether the DPEIR has sufficiently addressed these factors. These attachments would have provided essential information without which the DPEIR's conclusions regarding criteria pollutants found in Chapter 6 and Appendix C2 are unsupported. The droplet evaporation analysis would also have provided essential information regarding the potential inhalation risks posed by MD-2. Without these attachments, the DPEIR's conclusion that the program will have no significant unmitigable air quality impacts is unsupported and insufficient, contrary to Public Resources Code sections 21081, 21081.5, and 21100(b), and CEQA Guidelines sections 15091, 15126.2 and 15384(b).

6. The DPEIR Fails to Address the Impacts of Inert Ingredients.

The DPEIR fails to address the true impacts of inert ingredients on human and environmental health. Repeatedly, it presents conflicting assessments of these impacts. On the one hand the DPEIR claims that the inert ingredients for the various program chemicals cannot be ascertained, yet in the next breath it asserts that these ingredients will pose no impacts to human health or the environment. *See, e.g.,* Appendix D, p. D3-2. The DPEIR states that the US EPA, and therefore the Department of Pesticide Regulations and CDFA, may not have correct inert material information, yet it also claims that all formulations are tested and therefore safe. *Id.* But pesticide manufacturers who change inert ingredients are not required to provide new testing data to the EPA. 40 C.F.R. §§ 152.80- 152.81. Therefore, it is disingenuous for the DPEIR to state that only the permethrin used in the MMA alternative "contains additional toxic ingredients." *See, e.g.*, Appendix C1, § C3.2.2, p. C3-8.

The DPEIR's analysis of potential inert ingredients and the risks they pose to the environment is flawed in other respects. For example, the DPEIR states that although volatile organic compound content information for the program products was provided by the Department of Pesticide Regulations, it "was based on the default median of the broad category the formulation belonged to. " Appendix C2, §C8.3.1, p. C 8-7. As the DPR information was "usually less conservative" than the extrapolation based upon the MSDS information, the DPEIR used the MSDS information instead. *Id.* For those instances where the MSDS information was less conservative than that provided by the Department of Pesticide Regulation, however, the information provided by DPR should have been used instead. Additionally, CDFA declined to include even the broad formulation category information in any other analysis of the impacts these chemicals will have on human and environmental health. For these reasons, the DPEIR's analysis of the human and environmental effects of these chemicals is inconsistent and unreliable, contrary to CEQA Guidelines section 15384(b).

7. The DPEIR's Sensitive Receptor Analysis is Flawed.

The DPEIR's analysis of sensitive receptors is faulty for several reasons. First, the DPEIR fails to accurately account for the effects of the program alternative chemicals on people who have compromised immune systems or who have been sensitized to chemical exposures. For example, the DPEIR acknowledges that Btk exposure induces an antibody response in people with auto-immune disorders, yet it fails to address the impacts of such a response in these populations. § D3.4.2.3.1, D3-97; § 8.1.5, p. 8-12. People with auto-immune disorders with abnormal anti-nuclear antibody responses, such as lupus, can suffer debilitating symptoms when their immune responses are triggered. The DPEIR does not address how any of the other products affect immune responses in such populations.

Second, the DPEIR does not identify these members of the population as sensitive receptors; instead the DPEIR assumes that healthy children will be the most sensitive human receptors, due to their size and propensity to play in the dirt. § 8.2.1, p. 8-17; § D4.4.3, p. D4-14 to D4-15. In addition to the child residents and child park users identified as the sensitive receptors for the human health assessment, the DPEIR must analyze the impacts of these chemicals on chemically sensitive and immunocompromised people. Without this information, the DPEIR is incomplete, contrary to CEQA Guidelines sections 15091, 15126.2 and 15384(b).

8. The DPEIR Fails to Adequately Analyze the Environmental Fate of the Project Alternatives.

As briefly mentioned above, the DPEIR fails to adequately address the environmental fate of the program alternatives. To properly address them, the DPEIR should have assessed all the project alternatives' transformation rates, partition rates, and transportation rates. Instead, it examined the wrong products or the wrong issues. *See, e.g.*, § F3.2.1.1, pp. F3-36, F3-37 (DPEIR describes environmental fate of the wrong Hercon product); § F3.2.5.1, p. F3-51 (DPEIR fails to address the environmental fate of SPLAT, and instead discusses cure time and effectiveness); § F3.3.1.2, p. F3-63 (indicates that MMA, once rainfast, will have no environmental exposure, but includes no further analysis). Additionally, the DPEIR does not analyze whether any of the project alternatives will create additional health hazards in the case of a wildfire. Given the prevalence of wildfires as an integral part of the ecologic regime throughout the state, including the program area, the DPEIR should address the flammability of these compounds, as well as the air quality, human health, and ecological health impacts of exposure to their combustion by-products. As the DPEIR fails to include information regarding these important issues, its conclusions that all project alternatives will have no significant unmitigable environmental impacts violates CEQA Guidelines sections 15126.2, 15126.4 and 15384(b), and therefore cannot stand.

VIII. THE DPEIR FAILS TO ADDRESS A REASONABLE RANGE OF ALTERNATIVES.

The DPEIR fails to address a reasonable range of alternatives. As previously mentioned, the DPEIR's project alternatives are unproven eradication tools, and the DPEIR's reliance upon them is therefore not justified by the facts. The DPEIR dismisses a wide range of alternatives, including integrated pest management, classic biological control, and cultural control from further consideration because CDFA determined they would not meet the program goal of eradication. § S.2, p. S-5, S-6. At the same time, the DPEIR determined that scoping comments related to the program alternatives' "effectiveness in LBAM's eradication from the state" were not pertinent to the PEIR process and were not addressed in the DPEIR. § 1.4.2, p. 1-8. Just as the DPEIR must address the possibility that eradication is not possible, it should also address effective control strategies. The DPEIR's failure to present any alternatives besides the project

alternative and the NPA, such as a natural biologic pest-control alternative, renders its environmental analysis incomplete, in violation of CEQA Guidelines section 15126.6.

IX. The DPEIR's Reliance Upon Manuals, Notices and Other Non-Promulgated Items Is Improper.

The DPEIR exposes CDFA's continued reliance on non-promulgated regulations. For example, the DPEIR states that CDFA mandates that farming operations and nurseries "where a LBAM infestation has been detected must follow procedures outlined in the LBAM Regulatory Procedures Manual (CDFA et al. 2008)." § 2.3.1 at p. 2-6. This manual is used by CDFA to regulate trapping and inspection procedures at "nurseries and other producers of plant and tree products." § 1.1.3, p. 1-5. CDFA also uses this manual to regulate actions pending confirmed identifications. *Id.* The contents of this manual have never been promulgated as regulations under the California Administrative Procedures Act, and the manual is not part of the California Code of Regulations. As an "underground regulation," it is not a legitimate component of California law.

The DPEIR also indicates that CDFA considers LBAM to be a "Class A pest." Chapter 3, p3-1; § B1, p. B1-1. CDFA has never promulgated any regulation that states that LBAM is such a pest. Further, CDFA has never promulgated such a pest-classification ranking. Instead, CDFA regulates plant pests based on a 1989 Industry Policy Letter #89-2, which CDFA has declared to be its pest ranking system. CDFA *Plant Industry Guidelines for Establishing for Changing Pest Ratings*, (April 28, 1989) as found at www.cdfa.ca.gov/PHPPS/docs/PlantPestRatings.pdf (last visited September 18, 2009). This letter purports to establish CDFA's pest ranking system as well as the procedures for establishing a new rating or changing a rating. *Id.* These procedures are not included within the California Code of Regulations or the Food and Agricultural Code. Therefore they constitute an unenforceable "underground regulation."

As the DPEIR assumes that all NPA actions would be based upon the Regulatory Procedures Manual and Industry Policy Letter #89-2, these assumptions are flawed. The DPEIR's reliance upon underground regulations, which have not been properly promulgated under the California Administrative Procedures Act, renders it legally deficient both under CEQA and settled principles of administrative law.

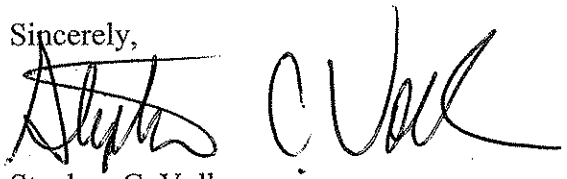
Additionally, the CDFA regulations that establish the LBAM interior quarantine, at 3 California Code of Regulations section 3434, have all been promulgated as "emergency" regulations, even though CDFA ceased any non-phytosanitary measures against the LBAM within the quarantine areas since 2007. Two superior courts have ruled that CDFA had no evidence to support its claim of an LBAM "emergency" when CDFA sought to exempt its LBAM pesticide program from CEQA in 2007. *County of Santa Cruz v. California Department of Food and Agriculture*, Santa Cruz Superior Court Case No. 158516, April 29, 2008 Order

granting peremptory writ of mandate; *Helping Our Peninsula's Environment v. California Department of Food and Agriculture*, Monterey Superior Court Case No. M86553, May 12, 2008 Intended Decision granting writ of mandate at p. 6. Yet CDFA still cites its initial 2007 finding of emergency to justify each new emergency regulation and the justification for the emergency rulemaking continues to be that California faces an extreme environmental and economic threat from the LBAM that requires immediate agency action. *See, e.g.*, CDFA Finding Of Emergency, August 25, 2009, at www.cdfa.ca.gov/phpps/docs/3434_%20FOE_Add_LongBeachandLosOsos.pdf, (last visited September, 25, 2009). CDFA's continued use of the emergency regulations procedure, ostensibly based on science but in fact devoid of any factual or legal support, violates both the Administrative Procedures Act and CEQA.

X. CONCLUSION

The DPEIR relies on flawed assumptions, incomplete data, insufficiently grounded scientific analysis, skewed methodologies, and numerous factual and legal errors and omissions. Consequently, it violates CEQA and must be withdrawn.

Sincerely,



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