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SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SACRAMENTO

OUR CHILDREN'S EARTH FOUNDATION; MOTHERS OF MARIN AGAINST THE SPRAY; STOP THE SPRAY EAST BAY; CITY OF ALBANY; CITY OF BERKELEY;	No. 34-2010-80000638 (Related Case: No. 34-2010-80000518)

CITY OF RICHMOND; CITY AND COUNTY OF SAN FRANCISCO; CENTER FOR ENVIRONMENTAL HEALTH; CALIFORNIANS FOR PESTICIDE REFORM; PESTICIDE WATCH; PESTICIDE ACTION NETWORK NORTH AMERICA; CITIZENS FOR EAST SHORE PARKS; STOP THE SPRAY SAN FRANCISCO,

Petitioners and Plaintiffs,

v.

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE; A.G. KAWAMURA, in his official capacity as Secretary of the California Department of Food and Agriculture; and DOES 1 through 100, inclusive,

Respondents and Defendants.

PETITIONERS' OPENING BRIEF IN SUPPORT OF PETITION FOR WRIT OF MANDATE UNDER CEQA

Date: May 11, 2012
Time: 10:30 a.m.
Dept: 33

ASSIGNED FOR ALL PURPOSES TO THE HONORBALE LLOYD G. CONNELLY, DEPARTMENT 33

Our Children's Earth Foundation, Mothers of Marin Against the Spray, Stop the Spray East Bay, City of Albany, City of Berkeley, City of Richmond, City and County of San Francisco, Center for Environmental Health, Californians for Pesticide Reform, Pesticide Watch, Pesticide Action Network North America, Citizens for East Shore Parks, and Stop the Spray San Francisco (collectively, "Petitioners") respectfully submit this opening brief in support of their Petition under the California Environmental Quality Act ("CEQA") filed on April 22, 2010 ("Petition").

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I. INTRODUCTION

The California Department of Food & Agriculture ("CDFA") intends to wage a statewide war against the Light Brown Apple Moth ("LBAM") by spraying pesticides to kill LBAM, widely distributing synthetic moth pheromones to confuse LBAM mating, releasing millions of parasitic wasps to destroy LBAM eggs, releasing millions of irradiated sterile moths from airplanes to prevent LBAM reproduction, and luring moths into toxic pesticides using LBAM pheromones. CDFA's aggressive attack is misguided, because this small Australian-native moth has been in California for thirty years (if not longer), causes little damage to plants (if any), and is readily controlled by natural predators, parasites, and integrated pest management techniques.

CDFA began its offensive in 2007, by aerially spraying synthetic moth pheromones and unknown chemical additives over portions of Santa Cruz and Monterey counties. Remarkably, CDFA aerially sprayed these populated areas without conducting the environmental review required by the California Environmental Quality Act ("CEQA").

Having since been ordered by two courts to comply with CEQA's mandate before pursuing chemical warfare against LBAM, CDFA has prepared what it calls a programmatic environmental impact report ("PEIR") for the "Light Brown Apple Moth Eradication Program" ("Program"). In doing so, CDFA misled the public and thwarted the opportunity for meaningful review of its battle against LBAM. The PEIR only considers a program to *eradicate* LBAM. CDFA insisted that LBAM eradication was feasible and dismissed many comments questioning this conclusion. CDFA also dismissed many alternatives proposed by the public that would control, rather than eradicate, LBAM. But, after circulating the Final EIR, CDFA abruptly reversed course, announced that eradication was not feasible, refused to reconsider any dismissed control alternatives, and certified the PEIR without updating its environmental analysis to reflect the new Program objective or allowing additional public comment. In a classic bait and switch, CDFA presented one program to the public but approved a significantly different program after the public review period had ended.

CDFA neglected to abide by CEQA's requirements in many other ways as well. For example, CDFA omits any environmental analysis regarding the specific places where the

chemicals, pheromones, wasps, and irradiated moths will be launched, instead relying on the title "programmatic EIR." But a programmatic EIR requires subsequent, more detailed site-specific analysis, and CDFA has made it clear that it intends to do no further environmental review before deploying the various chemicals, pheromones, wasps, and irradiated moths anywhere in the nearly statewide Program "area." The PEIR is also invalid because the alternatives analysis is misleading and contains many flaws, including baseless (and ridiculous) assumptions regarding private party pesticide use absent the Program. CDFA failed to analyze the chronic effects on humans, or the effects on native insects and animals, of the synthetic LBAM pheromones and pesticides it will use. And, CDFA did not even try to consider the cumulative impacts of the Program with other projects that utilize similar chemicals and pheromones.

Further, the Administrative Record demonstrates that CDFA not only ignored comments from the public and other agencies regarding the deficiencies in the PEIR, but CDFA also dismissed comments and serious concerns raised by its own environmental consultants. The Record reveals that the analysis CDFA presents in the PEIR is entirely ends-oriented; multiple documents include blatant admissions by CDFA's consultants regarding manipulation of risk assessments to arrive at "no significant impact" findings in the extremely compressed time period that CDFA allotted for preparation of the PEIR. For all of the reasons discussed herein, Petitioners respectfully request that CDFA's defective PEIR be set aside.

II. STATEMENT OF FACTS

A. The Light Brown Apple Moth

LBAM is a small lepidopteran moth native to Australia. (AR67541.)[1] LBAM also has lived in New Zealand and Hawaii since at least 1891 and 1896, respectively. (*Id.*; AR02082) LBAM is a "leafroller" and, like other leafroller moths, LBAM caterpillars create protective shelters around themselves by rolling leaves around their bodies. (AR67543; AR60905.) LBAM larvae rely on the structural integrity of these leaf cocoons for protection, and as a result the larvae generally do not defoliate plants and cause only superficial leaf damage. (AR60905.) Adult LBAM do not feed and cause no plant damage. (AR42921.)

[1] All references to the certified Administrative Record ("AR") are cited as: AR[bates number].

LBAM do not reproduce at a rapid rate. (AR60905.) While a female typically lays about 150 eggs during its one to two week lifespan, most eggs are eaten by predators or infested by parasites and never reach maturity. (*Id.*) LBAM also do not travel great distances; adult LBAM generally do not travel more than 100 meters from the plant on which they hatched. (AR60905.) LBAM populations therefore grow and spread geographically at a slow rate. (*Id.*; AR02169.)

LBAM is considered to be a pest primarily as a result of New Zealand's experience in the 1980s and 1990s. (AR60907.) During this time, New Zealand farmers used organophosphate insecticides[2] against LBAM and other insects. (*Id.*) LBAM quickly developed resistance to these pesticides, and the pesticides had the unintended effect of killing many natural LBAM predators. (AR67546.) As a result of heavy and widespread use of organophosphates, LBAM populations expanded, and LBAM caused significant damage to some New Zealand crops. (*Id.*) Beginning in the late 1990s, however, New Zealand farmers halted the use of organophosphates and instead adopted an integrated pest management ("IPM") approach. (AR60909.) The IPM program used beneficial predators and targeted applications of less-toxic pesticides to control LBAM populations. (AR67546.) Without organophosphates, the natural balance of LBAM and its predators was restored and LBAM numbers remained low. (*Id.*) LBAM now causes little crop damage there and is not considered a significant agricultural pest. (AR60908.)

In many respects, California and New Zealand are similar – they have similar climates and grow similar crops. (AR67541; AR60903-04.) California also has native populations of leafroller moths and their natural predators. (AR60911-12.) Because of these similarities, a biological control or IPM program modeled after New Zealand's could effectively control LBAM in California. (AR60913; AR67547-48.) An expert recently noted that, "[m]any fruit crops in California already receive control measures for native and introduced leafrollers, and these tactics may prove to be effective for [LBAM] without a great deal of modification." (AR67548.)

B. CDFA's "Emergency" Aerial Spraying Of LBAM Pesticides

In late 2007, CDFA began what it called an "emergency" effort to eradicate LBAM.

[2] Organophosphate pesticides act by disrupting nerve function of insects and are highly toxic to nearly all insects, as well as humans and many other animals. (AR60907.)

Although many experts believe LBAM has been living in California for up to 30 years, CDFA claimed LBAM had only recently entered California after a retired entomologist found LBAM in his backyard in Berkeley in 2006. (AR00068.) Deeming this so-called discovery an emergency, CDFA sprayed untested LBAM pheromones over Santa Cruz and Monterey counties using crop duster airplanes, all without conducting any environmental review. (*Id.*) Shocked residents and concerned citizens immediately filed two CEQA lawsuits challenging CDFA's aerial spraying. (AR60915.) CDFA argued that the spraying was a necessary emergency measure exempt from CEQA and, in any case, unlikely to have any significant environmental effects. Two courts disagreed with CDFA, granting motions for preliminary injunction and ordering CDFA to prepare an EIR before conducting any further aerial spraying of LBAM treatments. (*Id.*)

After the spraying, many Santa Cruz and Monterey residents complained of adverse effects, including shortness of breath, dizziness, headache, nausea, and vomiting. (AR61268.) Residents also experienced psychological trauma from being aerially sprayed with untested, synthetic moth pheromones and other chemicals without their consent. (AR06979-89.) And the adverse effects were not confined to humans; residents also reported a large number of dead sea birds floating in coastal waters. (AR08571; AR01775.) After investigating the sea bird deaths, the California Department of Fish and Game admitted it could not say definitively that the spraying did not cause the deaths. (AR08571.) CDFA has itself admitted that the effects of LBAM pheromones on animals and humans are not well understood. (AR01207-08.) In particular, the effect of chronic exposure to the pheromones is unknown. (AR00384; AR01209.)

C. The Draft EIR For LBAM Eradication Using Eight Treatments

Under court order to prepare an EIR, CDFA devised a "program" to continue its attack on LBAM. CDFA defined the goal of its program as the "eradication" of LBAM from California. (AR00163.) It defined the program area as "all portions of the state [of California] in which climatic conditions are suitable to the LBAM" (the "Program Area"). (*Id.*) According to CDFA, this includes the entire state except a few desert and mountain areas. (*Id.*) CDFA provided nothing adequate to show where in the vast Program Area eradication activities will occur. (*Id.*)

CDFA does not dispute that it has not analyzed the impacts of its eradication activities in the specific environments where the activities will occur. (*See, e.g.*, AR00486; AR00456-57; AR00275.) Instead, CDFA merely labeled its Draft EIR "programmatic," describing it as a "screening level" document that did not undertake "site-specific" analyses of the Program's environmental impacts. (AR00068; *see, e.g.*, AR00251; AR00486.)

To achieve its eradication goal, CDFA proposed eight treatment options (confusingly labeled as "alternatives"). According to CDFA, it would take "3 to 5 years" to eradicate LBAM using these treatment options. (AR00163.) Based on this assumption, CDFA purported to study the effects of these treatments on the environment for a seven-year period. (AR01257; AR01788.) The eight treatment options proposed in the Draft EIR include:

- **MD-1 ("IsoMate Twist Ties")**: involves deploying plastic twist ties infused with the synthetic LBAM pheromone[3] IsoMate. (AR00170.) Each twist tie contains the active ingredient pheromone in a porous plastic matrix designed to release the pheromone slowly. (AR00543.) IsoMate does not kill LBAM, rather it attracts male LBAM to the pheromone lure, thus reducing the probability that the male will find a mate. (AR01140.) CDFA proposes deploying roughly 250 twist ties per acre in a 200-meter radius around each detected LBAM population. (AR00170.) The areas where CDFA may deploy twist ties include private property and residential areas. (AR01754.)
- **MD-2 ("Hercon/SPLAT Ground Spray")**: consists of spraying the synthetic LBAM pheromone mixtures Hercon Bio-Flake ("Hercon") and "SPLAT"[4] from guns in trucks or backpacks. (AR00170.) Hercon consists of a synthetic LBAM pheromone embedded in a plastic laminate polymer flake (CDFA later changed this use to a biodegradable polymeric flake). (AR01488; AR03459.) SPLAT is a mixture of synthetic pheromone and "biologically inert" materials intended to provide for slow pheromone release. (AR01502.) CDFA proposes spraying Hercon and SPLAT on trees and shrubs in residential yards and on telephone poles and trees on public property alongside roadways.

[3] A pheromone is a chemical signal that triggers a natural response in another member of the same species.

[4] IsoMate, Hercon, and SPLAT are collectively referred to as the "Program Pheromones."

(*Id.*) CDFA would enter private property to apply the Hercon and SPLAT to residential vegetation. (AR64031.)

- **MD-3 ("Hercon/SPLAT Aerial Spray")**: consists of spraying either Hercon or SPLAT from a Beechcraft A90 plane flying at a height of 300 to 500 feet. (AR00171.) The Draft EIR provided no information about the location of any aerial spraying, other than that it would occur in "undeveloped" areas. (*Id.*) After many comments complained about this lack of specificity as to the location of aerial treatments, the Final EIR contained a series of maps "where aerial application of pheromones *might* occur" but also stated that exclusion of an area on these maps does not guarantee that the area would not be treated with Hercon/SPLAT Aerial Spray. (AR01753-66 (emphasis added).) Elsewhere, the PEIR defines the treatment area for aerial applications as a 1.5-mile radius around each location where an LBAM is detected. (AR00171.)
- **MMA ("SPLAT and Permethrin Spray")**: the "male moth attractant" treatment, involves using SPLAT to attract male LBAM and then the pesticide permethrin to kill the moth. (AR00171.) CDFA would apply the pheromone-pesticide mixture to street trees and utility poles using either a caulk gun, backpack-based gun, or truck-based gun. (*Id.*) CDFA contemplates application of SPLAT and Permethrin Spray in residential areas without regard for population density. (*Id.*)
- **Btk ("Btk Spray")**: involves application of the pesticide Bacillus thuringiensis kurstaki ("Btk") using backpack or truck-based spray guns. (AR00173.) Btk is a bacterium that contains proteins toxic to certain insects, including moths, butterflies, beetles, and flies. (AR01235.) Btk Spray is slated for use anywhere CDFA concludes "heavier larval populations" of LBAM exist. (AR00173.)
- **S ("Spinosad Spray")**: involves application of the pesticide spinosad using backpack or truck-based spray guns. (AR00173.) Spinosad is an insecticidal mixture derived from the soil bacterium Saccharopolyspora spinosa that is toxic to a wide variety of insects. (AR01228.) Spinosad Spray is also proposed for use wherever "heavier larval populations" of LBAM exist. (AR00173.)

- **Bio-P ("Parasitic Wasp Release")**: consists of releasing Trichogramma wasps known to parasitize LBAM eggs. (AR00174.) CDFA would release roughly 1 million wasps per square mile by attaching wasp pupae in host LBAM eggs to index cards, which would be attached to foliage where LBAM is detected. (*Id.*) CDFA proposes Parasitic Wasp Release anywhere CDFA makes "moderate to heavy LBAM detections." (*Id.*)
- **Sterile Insect Technique / SIT ("Irradiated Moth Release")**: involves the aerial release of LBAM that have been sterilized using heavy doses of radiation. (AR00174.) CDFA believes SIT will interfere with LBAM mating by causing wild LBAM to mate with sterilized LBAM, rather than other viable wild moths. (*Id.*) CDFA proposes releasing at least 20 million sterile moths per day at approximately 500,000 moths per square mile. (*Id.*) CDFA would release the moths using a Beechcraft twin engine A90, flying at about 2,000 feet. (*Id.*) CDFA characterizes SIT as the "primary" eradication tool, when available. (*Id.*) Irradiated Moth Release may occur anywhere in the Program Area. (*Id.*)

D. Comments Identified Numerous Deficiencies In The Draft EIR

In response to CDFA's Draft EIR, numerous agencies, organizations, and individuals – including Petitioners – submitted written comments and spoke at public hearings expressing concerns and alerting CDFA to numerous CEQA deficiencies in the Draft EIR, some of the most egregious being that the Draft EIR:

- Failed to disclose where, when, how, and in what combination CDFA would employ its arsenal of Program Treatments;
- Failed to consider a reasonable range of alternatives or to consider feasible alternatives in sufficient detail;
- Failed to consider the cumulative impacts of the Program with other related past, present, and future projects;
- Failed to adequately analyze the Program's impacts on human health and ecological health because CDFA's analyses were insufficient and flawed;
- Failed to disclose the inert ingredients of the Program Chemicals; and
- Improperly assumed that eradication of LBAM was necessary or feasible (tellingly, to date, there is no reasonable or credible evidence that LBAM has caused damage to crops in California or that eradication of the moth is possible).

(*See* AR01798-3449.)

Most of the comments fell on deaf ears, and, on February 26, 2010, CDFA released the final LBAM Program EIR ("Final EIR") that consisted of cursory responses to public comments and some immaterial revisions to the Draft EIR. (AR01725-3517.) In the Final EIR, CDFA approved statewide use of IsoMate Twist Ties, Hercon/SPLAT Ground Spray, Hercon/SPLAT Aerial Spray, SPLAT and Permethrin Spray, Btk Spray, Spinosad Spray, Parasitic Wasp Release, and Irradiated Moth Release (collectively referred to as the "Program Treatments").[5]

E. CDFA Admits Some Errors (But Ignores Many Others) In The Final EIR

Two changes CDFA made in the Final EIR highlight the uncertainties surrounding the use of the Program Chemicals among human populations and call into question CDFA's assertion that "[t]he safety of the biological and chemical pesticides proposed for use in the LBAM Eradication Program was evaluated in the [human health risk assessment]." (AR01771.) First, CDFA admitted it had miscalculated the risk to children from permethrin by using an inaccurate cancer risk factor. (AR01747.) When CDFA applied the correct risk factor, the permethrin exposure from SPLAT and Permethrin Spray exceeded acceptable risk levels for children. (*Id.*) Thus, in the Final EIR, CDFA conceded that it had "withdrawn the Male Moth Attractant Alternative from the list of potential tools to be used in the LBAM eradication Program." (*Id.*)

CDFA also revised the Program Treatments to preclude application of IsoMate, Hercon, or SPLAT at schools. (AR01748.) CDFA had concluded that these Program Pheromones posed no threat to humans based on its flawed and conclusory analysis. But, after releasing the Draft EIR, CDFA realized that the Department of Pesticide Regulation listed the Program Pheromones on its *List of Pesticide Products Prohibited from Use in Schools and Child Care Facilities*. (*Id.*) As a result, CDFA had to change its Program to exclude these chemicals from use near children.

F. CDFA's Radical Change On The Day It Certified The Program EIR

After issuing the Final EIR, CDFA made a dramatic and sweeping change to the Program in its findings of fact ("Findings") – CDFA changed the Program goal from "eradication" to "control and suppression" of LBAM. (AR00010-11.) With this momentous last-minute change, CDFA certified the operative document for the Program (the "PEIR") and issued its Findings on

[5] IsoMate, Hercon, SPLAT, Btk, and spinosad are collectively referred to as the "Program Chemicals."