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NORTH COAST RIVERS ALLIANCE, a non-profit, unincorporated association, FRANK EGGER, TIMOTHY WILCOX, in his own behalf and on behalf of his 1-year old son, JACK WILCOX, KRISTA MARIE ALONGI ARON, on her own behalf and on behalf of her minor daughter NORA ARON, SANDIE SCHMAIER, SHARON LUEHS, GAYLE McLAUGHLIN, WHITNEY MERCHANT, ROBERT LIEBER, MICHAEL LYNBERG, and TONY MADRIGAL

IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

WDB

NORTH COAST RIVERS ALLIANCE, a non-profit, unincorporated association, FRANK EGGER, TIMOTHY WILCOX, in his own behalf and on behalf of his 1-year old son, JACK WILCOX, KRISTA MARIE ALONGI ARON, on her own behalf and on behalf of her minor daughter NORA ARON, SANDIE SCHMAIER, SHARON LUEHS, GAYLE McLAUGHLIN, WHITNEY MERCHANT, ROBERT LIEBER, MICHAEL LYNBERG, and TONY MADRIGAL,

Plaintiffs,

v.

STEVEN L. JOHNSON, Administrator, United States Environmental Protection Agency, and the UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

Defendants.

CASE NO.

**COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF**

## INTRODUCTION

1. In this civil action for declaratory and injunctive relief, plaintiffs NORTH COAST RIVERS ALLIANCE, a non-profit, unincorporated association, FRANK EGGER, TIMOTHY WILCOX, on behalf of himself and his infant son, JACK WILCOX, KRISTA MARIE ALONGI ARON, on behalf of herself and her daughter NORA ARON, SANDIE

SCHMAIER, SHARON LUEHS, GAYLE McLAUGHLIN, WHITNEY MERCHANT, ROBERT LIEBER, MICHAEL LYNBERG, and TONY MADRIGAL (collectively, "plaintiffs") challenge the ENVIRONMENTAL PROTECTION AGENCY's ("EPA's") decision to exempt the pesticides CheckMate OLR-F and CheckMate LBAM-F (collectively, the "CheckMate pesticides") from registration under the Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"), 7 U.S.C. section 136 et seq.

2. This action seeks to redress a demonstrable violation of federal environmental law that has already caused widespread, physical harm to infants, children, the elderly, and the chemically sensitive, as well as to seabirds, upland birds, and other wild and domestic animals. For a three month period in the Fall of 2007, based on the Environmental Protection Agency's unlawful exemption of two unsafe pesticides from quarantine and registration, the U.S. Department of Agriculture ("USDA") and the California Department of Food and Agriculture ("CDFA") conducted a widespread aerial pesticide spraying program for the Light Brown Apple Moth ("LBAM") at night over urban and rural areas in Monterey and Santa Cruz counties. Based on the 643 individuals who subsequently reported injuries in written submissions to the State of California, it is estimated that several thousand persons suffered physical injury. More than 650 dead or injured birds were collected along the shoreline of Santa Cruz County after CheckMate LBAM-F was sprayed on November 8. Substantial harm to and loss of other wild and domesticated animals during and after the spraying program have also been documented.

3. But for rulings by the Superior Courts of Monterey and Santa Cruz counties in March and April 2008 finding that there was no evidence of any crop damage from the presence of Light Brown Apple Moths in those two counties, and thus CDFA's claimed "emergency" exemption from the requirements of the California Environmental Quality Act ("CEQA") was unlawful, this ill-advised and destructive aerial spraying program would have continued. The USDA and CDFA now threaten to resume their LBAM eradication program – including an aerial spraying component – following completion of required reviews under CEQA. Therefore plaintiffs seek this Court's order declaring EPA's purported exemption of the CheckMate

pesticides from registration under FIFRA to be unlawful.

## JURISDICTION AND VENUE

4. The Court's jurisdiction over this action is conferred by 5 U.S.C. §§701- 706 (Administrative Procedure Act), which invests this Court with jurisdiction to review final administrative actions of federal agencies such as EPA, and by 7 U.S.C. §136n(c) (FIFRA), which provides that "[t]he district courts of the United States are vested with jurisdiction to enforce, and to prevent and restrain violations, of [FIFRA]." Whether or not FIFRA confers a private right of action, plaintiffs may obtain district court review for violations of FIFRA under the APA. *Oregon Environmental Council v. Kunzman* (9th Cir. 1983) 714 F.2d 901, 903. Venue is properly vested in this Court under 28 U.S.C. §1391(e) because the federal defendants reside, the actions giving rise to this case occurred, and the property that is subject of this case is located, in this judicial district.

## PARTIES

5. Plaintiff NORTH COAST RIVERS ALLIANCE is an unincorporated association of conservation leaders from throughout the coast of Northern California. NCRA has actively participated in the review and submission of comments on and objections to state and federal agency proposals to spray the pesticides CheckMate OLR-F and CheckMate LBAM-F on lands and waters in the San Francisco and Monterey Bay Areas, and has participated in extensive litigation to enforce compliance by state and federal agencies with environmental laws protecting the rivers and watersheds of the coast of Northern California.

6. Plaintiff TIMOTHY WILCOX is a Major in the United States Air Force, and a resident of Del Ray Oaks, California, in the County of Monterey, California. His infant son, plaintiff JACK WILCOX, was severely and permanently injured by the aerial application of CheckMate OLR-F to Monterey County in September 2007.

7. Plaintiff JACK WILCOX, son of plaintiff TIMOTHY WILCOX and his wife, Sheri Wilcox, is a 20-month old child who sustained acute and long-term respiratory injuries resulting from the aerial application of CheckMate OLR-F to Monterey County in September 2007, when he was 11 months old. JACK WILCOX suffered a severe allergic reaction to the

spray which repeatedly caused him to stop breathing. Only extraordinary and continuing medical intervention saved his life. JACK is now dependent on medication to keep his airways functioning.

8. Plaintiff KRISTA MARIE ALONGI-ARON is a chiropractor who lives in the town of Soquel, located in Santa Cruz County, California. Her daughter, plaintiff NORA ARON, was injured at the time of the aerial application of CheckMate LBAM-F to Santa Cruz County in November, 2007.

9. Plaintiff NORA ARON is a 10 year old child who sustained acute and long-term respiratory injuries resulting from the aerial application of CheckMate LBAM-F to Santa Cruz County in November, 2007, when she was 9 years old. NORA ARON suffered a severe allergic reaction to the spray which nearly caused her to stop breathing as her mother rushed her to the hospital. NORA's resulting chronic asthma has brought an abrupt end to her blossoming athleticism.

10. Plaintiff FRANK EGGER, San Francisco native and former Mayor of the City of Fairfax, is a Board member of the Pesticide Free Zone Campaign, a founder of Stop the Spray Marin, and a founding Board member of North Coast Rivers Alliance. MR. EGGER has commented both orally and in writing on proposals to spray the CheckMate (and related) pesticides in the San Francisco Bay Area. MR. EGGER and his family live, work and recreate in areas that have been proposed to be sprayed and otherwise treated with the CheckMate pesticides.

11. Plaintiff SANDIE SCHMAIER is an active supporter of Stop the Spray San Francisco and, along with her husband and two young children, is a resident of the City of San Francisco. MS. SCHMAIER has publicly opposed state and federal proposals to spray the CheckMate pesticides in San Francisco. MS. SCHMAIER and her family live, work and recreate within areas that have been proposed to be sprayed and otherwise treated with the CheckMate pesticides.

12. Plaintiff SHARON LUEHS is the Chair of Stop the Spray San Mateo, California, and has submitted comments opposing proposals to apply the CheckMate pesticides in the Bay

Area. She has resided on the San Mateo coast in Pacifica, California for over 25 years, and with her family, lives, works, and recreates in areas that have been proposed to be sprayed and otherwise treated with the CheckMate pesticides.

13. Plaintiff GAYLE McLAUGHLIN is the Mayor of the City of Richmond in Contra Costa County, California. MS. McLAUGHLIN has publicly opposed state and federal proposals to spray the CheckMate pesticides in Richmond, California. MS. McLAUGHLIN lives, works, and recreates within areas that have been proposed to be sprayed and otherwise treated with the CheckMate pesticides.

14. Plaintiff WHITNEY MERCHANT is an active member of Stop the Spray Marin and is a resident of Marin County. MS. MERCHANT has publicly opposed state and federal proposals to spray the CheckMate pesticides in Marin County. MS. MERCHANT lives, works, and recreates within areas that have been proposed to be sprayed and otherwise treated with the CheckMate pesticides.

15. Plaintiff ROBERT LIEBER is Mayor of the City of Albany, Alameda County, California. MR. LIEBER has publicly opposed state and federal proposals to spray the CheckMate pesticides in Alameda County, California. MR. LIEBER and his family live, work, and recreate in areas that have been proposed to be sprayed and otherwise treated with the CheckMate pesticides.

16. Plaintiff MICHAEL LYNBERG is a resident of Monterey County, who works in Santa Clara County, California. MR. LYNBERG has objected both orally and in writing to proposals to spray the CheckMate (and related) pesticides in the Monterey and San Francisco Bay Areas. MR. LYNBERG and his family were subjected to, and suffered physical injuries as a result of, the spraying of CheckMate OLR-F on Monterey County in September 2007. MR. LYNBERG conducted a comprehensive survey of the more than 600 residents of Monterey and Santa Cruz Counties who reported injuries as a result of the spraying of the CheckMate pesticides in those counties in the Fall of 2007, and submitted the results of his survey to the California Department of Food and Agriculture ("CDFA") with the request that CDFA conduct an investigation of the injuries caused by the spraying of the CheckMate pesticides.

17. Plaintiff TONY MADRIGAL is a City Councilmember for the City of Santa Cruz, and a supporter of the unincorporated non-profit organization California Alliance to Stop the Spray. MR. MADRIGAL lives, works, and recreates in areas that have been proposed to be sprayed and otherwise treated with the CheckMate pesticides.

18. Defendant STEVEN L. JOHNSON is the Administrator of the UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and is sued in his official capacity. As Administrator, MR. JOHNSON is responsible for management of the EPA, including the discharge of its duties and functions under FIFRA with respect to the CheckMate pesticides.

19. Defendant UNITED STATES ENVIRONMENTAL PROTECTION AGENCY is a federal regulatory agency responsible for the implementation of federal laws designed to protect the environment. The EPA is charged with responsibility for enforcing the requirements of FIFRA, including its restrictions on the use of the CheckMate pesticides whose violation prompted the filing of this action as alleged hereinbelow.

## LEGAL CONTEXT

### A. Federal Insecticide, Fungicide and Rodenticide Act

20. The Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"), 7 U.S.C. §136 *et seq.*, charges EPA with the responsibility to limit the use and distribution of pesticides as necessary to prevent unreasonable adverse effects on humans and the environment. FIFRA provides in 7 U.S.C. §136a(a) that "[e]xcept as provided by this subchapter, no person in any state may distribute or sell to any person any pesticide that is not registered under this subchapter." EPA registers each product for each separately-approved use, and must re-register older pesticides based on new information in order to fulfill current regulatory and scientific standards.

21. Pursuant to FIFRA, when pesticide manufacturers seek to register a pesticide or a constituent part of a pesticide, they must provide scientific data regarding the pesticide's toxicity and environmental impacts. 7 U.S.C. §136a(c). Based on the data submitted, EPA then determines whether the pesticide's use would present an unreasonable risk to human health or the environment.

22. FIFRA allows EPA to approve the unregistered use of pesticides and pesticide products in certain emergency circumstances, when such an exemption is sought by a federal or state agency. Section 18 of FIFRA, found at 7 U.S.C. §136p, states that "[t]he Administrator may, at the Administrator's discretion, exempt any federal or state agency from any provision of this subchapter if the Administrator determines that emergency conditions exist which require such exemption." There are four types of exemptions that may be granted pursuant to Section 18 ("Section 18 exemption"), as illustrated in the federal regulations pertaining to Section 18. Those four types are "specific, quarantine, public health and crisis exemptions." 40 C.F.R. §166.2.

23. EPA purported to rely on the "quarantine" and "crisis" exemptions here. A quarantine exemption "may be authorized in an emergency condition to control the introduction or spread of any pest that is an invasive species, or is otherwise new to or not theretofore known to be widely prevalent or distributed within and throughout the United States and its territories." 40 C.F.R. §166.2(b). A crisis exemption "may be utilized in an emergency condition when the time from discovery of the emergency to the time when the pesticide use is needed is insufficient to allow for the authorization of a specific, quarantine, or public health exemption." 40 C.F.R. §166.2(d).

24. FIFRA requires the EPA to ensure that all ingredients in the pesticide being considered comply with the Federal Food, Drug, and Cosmetic Act (FFDCA), 21 U.S.C. §§ 301 *et seq.*, prior to issuing any type of registration or Section 18 exemption. 40 C.F.R. §§152.50, 152.112, 166.25. The FFDCA, at 21 U.S.C. §§ 346 and 346a, requires EPA to create tolerances for pesticides and constituent materials of pesticides. A tolerance is the legal limit for a pesticide chemical residue in or on food. In order to issue a tolerance for a certain pesticide, EPA must determine that "the tolerance is safe." 21 U.S.C. § 346a(b)(2)(A)(i). EPA may also establish an *exemption* from the requirement for a tolerance, meaning that there is no legal limit for the amount of pesticide residue which may be present on or in a food, if "the Administrator determines that the exemption is safe." 21 U.S.C. §346a(c)(2)(A)(i). The FFDCA states that safety exists when "there is a reasonable certainty that no harm will result

from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information." 21 U.S.C. §346a(b)(2)(A)(ii).[1] Thus, under FIFRA, if a pesticide contains chemicals for which EPA has issued no tolerance or exemption under the FFDCA, a registration or Section 18 exemption under FIFRA for that pesticide is improper.

### B. Administrative Procedure Act

25. The Administrative Procedure Act ("APA") governs the way in which federal administrative agencies may propose, establish and administer regulations, as well as the way in which federal courts may assess the lawfulness of final actions taken by those agencies. Under the APA, courts must set aside agency decisions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. 5 U.S.C. §706(2)(A)-(D). Review of FIFRA claims for relief are justiciable under the APA. *Oregon Environmental Council*, *supra*, 714 F.2d at 903. The general statute of limitations for "civil actions commenced against the United States," including actions commenced under the APA, is six years. 28 U.S.C. §2401.

### C. Freedom of Information Act

26. The Freedom of Information Act ("FOIA"), 5 U.S.C. §552, provides any person the right to request access to federal agency records or information. All agencies of the U.S. Government are required to disclose records upon receiving a written request, except those records that are protected from disclosure.

## FACTUAL BACKGROUND

### A. The Light Brown Apple Moth

27. The Light Brown Apple Moth (*Epiphyas postvittana*) ("LBAM" or "moth") is a

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[1]For both tolerances and tolerance exemptions, "food" is defined as "a raw agricultural commodity or processed food." 21 U.S.C. §346a(a)(1). "Pesticide chemical residue" is defined at 21 U.S.C. §321(q)(2) as "a residue in or on raw agricultural commodity or processed food of – (A) a pesticide chemical; or (B) any other added substance that is present on or in the commodity or food primarily as a result of the metabolism or other degradation of a pesticide chemical."

member of the leaf-roller moth family, found in the order Lepidoptera. LBAM's feeding behavior does not cause plant defoliation, but instead results in aesthetic damage to the surface of leaves and fruit. In fact, defoliation would threaten the survival of LBAM, since as a leaf roller it relies on the leaves' structural integrity. Instead, the larvae roll the leaves around themselves for protection and to create hospitable, cocoon-like conditions for growth. Unlike the codling moth – the classic "worm in the apple" – LBAM rarely, if ever, penetrates the host fruit. LBAM feeds opportunistically on a wide range of host plants, such that the modest effects of its feeding are dispersed across a broad spectrum of plants.

28. LBAM's lifespan typically ranges from 1 to 1.5 weeks, and the moths will mate up to three times during their lives, producing 30 to 50 eggs per mating. Due to natural predators such as parasites, birds, spiders, wasps, and other insects, the majority of eggs laid do not reach maturity. Moths that do reach maturity are also subject to general predation by birds, bats, spiders, earwigs, beneficial flies, beneficial beetles, and parasitic wasps. The moths are believed to feed only in their larval, and not in their winged, form. During their lifespan, the moths do not travel more than approximately 100 meters from their hatching sites. LBAM prefers to feed and reproduce in cool, shaded conditions such as riparian areas, and does not thrive at temperatures below 45 degrees Fahrenheit or above 87 degrees Fahrenheit, a temperature range which is generally exceeded at both extremes in the Central Valley and other agricultural regions in the state.

**B. Historical Background**

29. LBAM is native to Australia, but has been introduced to New Zealand, New Caledonia, Hawaii, Britain, and Ireland. LBAM has been established in New Zealand for more than 100 years. Due to the regular application of broad-spectrum organophosphate pesticides that eliminated the beneficial insects that naturally prey on LBAM, LBAM was considered a "problem pest" in New Zealand orchards during the 1980's. However, since elimination of organophosphate treatments in 2001 and subsequent restoration of populations of beneficial insects and other organisms, LBAM no longer causes economically significant crop damage or detrimental effects on native flora in New Zealand. Today, LBAM is effectively controlled

almost exclusively by natural predators in both agricultural settings and wildlands in New Zealand. Nonetheless, because of residual fear of economic loss, some nations, including the United States, have implemented quarantines and prohibitions against the shipment of product containing LBAM larvae.

30. On February 6, 2007, a retired entomologist living in Berkeley, Alameda County, reported that two possible LBAMs had been captured in a blacklight trap on his property. As a result, an undisclosed number of pheromone-baited traps were placed on March 1, 2007 in locations in Alameda and Contra Costa County. After approximately one week of trap inspections, laboratory reports sponsored by the United States Department of Agriculture ("USDA") Animal and Plant Health Inspection Service ("APHIS") confirmed in both counties that the specimens in the traps were Light Brown Apple Moths. In the following months, LBAMs were "discovered" in several other coastal California counties, including Monterey, Santa Cruz, Santa Clara, San Mateo, San Francisco, Marin, and Sonoma. Because of their wide distribution but extremely slow rate of migration, a University of California, Davis Professor of Entomology who studied the moth's "sudden" emergence concluded that LBAMs had probably been resident within California for 30 to 50 years. Despite their many decades of residence within the state, LBAMs have yet to cause any documented damage to agricultural or horticultural products, or to native flora.

### C. Actions Taken by the Environmental Protection Agency and Other Administrative Agencies

31. On April 20, 2007, the California Department of Food and Agriculture ("CDFA") quarantined approximately 182 square miles in Alameda, Contra Costa, San Francisco, Marin, and Santa Clara Counties, and later expanded the quarantine to include Monterey, Santa Cruz, and San Mateo Counties. On May 2, 2007, APHIS issued a "Federal Domestic Quarantine Order for Light Brown Apple Moth." This quarantine served to "restrict interstate movement of certain articles to prevent the spread of LBAM," and encompassed "all LBAM-affected counties of California and the entire State of Hawaii."

32. On June 6, 2007, APHIS requested from EPA a Crisis Exemption pursuant to

Section 18 of the FIFRA for the semiochemical CheckMate OLR-F, the active ingredients of which are pheromones that disrupt mating patterns of members of the omnivorous leafroller insect family, including LBAM.

33. On June 13, 2007, APHIS requested from EPA a Federal Quarantine Exemption pursuant to Section 18 of FIFRA, permitting aerial and ground applications of CheckMate LBAM-F ("LBAM-F"), an unregistered product which operates similarly to OLR-F, in that its active ingredients are pheromones intended to disrupt the insect's mating process. However, LBAM-F is designed to specifically target the light brown apple moth as opposed to leaf roller moths generally.

34. On July 24, 2007, EPA granted APHIS' requested exemptions for the use of CheckMate OLR-F ("OLR-F") and CheckMate LBAM-F ("LBAM-F") to control LBAM. The exemptions purported to rely upon previous FFDCA tolerances for pheromones and inert ingredients. However, as will be shown, these prior tolerance exemptions do not encompass all of the ingredients contained in OLR-F and LBAM-F and also do not cover the type of application contemplated by federal and state agencies involved in the eradication program.

35. From September through November, 2007, CDFA caused both LBAM-F and OLR-F to be applied aerially to Santa Cruz and Monterey Counties. Only CheckMate OLR-F was used, from September 9th to the 13th, in Monterey Peninsula cities. LBAM-F was sprayed on Monterey and Santa Cruz during the period of October 24th through October 26th, and then again during the period of November 8th to November 11th.

36. The spraying of OLR-F and LBAM-F killed and injured thousands of wild and domestic animals in both counties. The most noticeable impact to animals due to the pesticide spray was a massive die-off of seabirds that began the morning after the all-night spraying that occurred in Santa Cruz County on the evening of November 8, 2007. Residents began finding dead and dying birds on the beaches of Santa Cruz County the morning of Friday, November 9. Within two days of the spray, more than 248 dead or injured birds were submitted to local native animal rescue organizations. Within seven days more than 650 dead or injured birds had been found. This aerial spraying was followed by rainfall that washed a large concentration of

pesticide runoff into Monterey Bay, a nationally protected Marine Sanctuary. Samples of the yellow froth that appeared at the ocean outlets of Santa Cruz rivers were examined and found to contain high levels of the CheckMate LBAM-F microcapsules. Many of the birds covered in this froth drowned or died from hypothermia, apparently due to the pesticide's surfactant, whose detergent action stripped oils from the bird's feathers, impairing their buoyancy and insulation from cold. Immediately following the sprayings, numerous residents in both Monterey and Santa Cruz counties reported a sudden disappearance of song birds in their communities. Many residents also reported dead or sickened cats and dogs, dead rabbits, dead and injured fish, and a die-off in honeybees.

37. In February 2008, APHIS issued an Environmental Assessment ("2008 EA"), which purported to "analyze the environmental impacts anticipated from the programmatic treatment of LBAM in California using mating disruption (pheromone), ground-based foliar application of insecticides, male moth attractant treatments, and biocontrol treatments for the purpose of eradication of the pest." No apparent further action has been taken by APHIS.

38. In March and April, 2008, the Superior Courts of Santa Cruz and Monterey counties ruled that CDFA had violated the California Environmental Quality Act, Public Resources Code section 21000 *et seq.* ("CEQA") in purporting to exempt its LBAM eradication program from preparation of an Environmental Impact Report as otherwise required under CEQA on the grounds that the Light Brown Apple Moth posed an "emergency" threat to California's agricultural industry. Both Courts found that there was no evidence that LBAM had caused any harm to crops, and that therefore CDFA's Fall 2007 aerial spraying program in those two counties should have been preceded by preparation of an EIR.

39. In April 2008, plaintiffs submitted FOIA requests to both EPA and USDA, seeking to obtain all relevant documents held by both agencies concerning the LBAM eradication plan. To date, neither agency has provided the requested documentation.

40. In July 2008, CDFA issued a Notice of Preparation of a Draft Programmatic Environmental Impact Report for the LBAM Eradication Program, indicating that CDFA intends to resume the eradication program.

41. In October 2008, the California Office of Environmental Health Hazard Assessment ("OEHHA"), the California Department of Pesticide Regulation ("CDPR") and the California Department of Public Health ("CDPH") issued a report purporting to analyze the safety of CDFA's LBAM eradication program one year after it had sprayed Monterey and Santa Cruz counties. They concluded that "the possibility that some of the symptoms [reported by over 600 persons within the spray zone] were caused by the application could not be ruled out." Their study examined LBAM-F and several similar formulations, but not OLR-F. Their study did not consider long-term or chronic effects, nor did they interview the over 600 individuals who had submitted health complaints or their reporting clinicians. Their report acknowledged significant acute reactions among the test animals (guinea pigs) including lung, liver, and spleen abnormalities, at least one death among the 10 test animals (10% mortality), and lymph node activation due to dermal exposure and resulting skin sensitization. Their study also noted that "almost half the Checkmate particles were smaller than 10 micrometers" and that when inhaled, "Checkmate particles may reach the alveolar or pulmonary region (deeper lung) and stay there for a longer period of time, many months or even longer. If that happens, the polyurea shell of the microcapsules can either stay intact or degrade and release its contents" into the deep lungs. Their study revealed that 50 percent of the animals that inhaled LBAM-F had abnormal lungs, livers, or a combination of the two. OEHHA, CDPR, and CDPH offer no explanation for these abnormalities.

42. Also in October 2008, CDPR issued a report on the areal extent of pesticide deposition from CDFA's Fall 2007 aerial spray program in Monterey and Santa Cruz counties. CDPR's report revealed that the aerial spray program had resulted in extensive drift of the applied mixture, causing vastly different pheromone pesticide concentrations at different locations, and exposure of non-target areas to pesticide. CDPR documented pesticide drift of up to 3.3 miles (17,400 feet) outside the designated treatment areas, contrary to prior agency claims that precision spray technology would assure avoidance of rivers, streams, school yards, and other sensitive areas.

43. The pesticide drift contaminated streams, rivers, school yards, and ponds.

Precipitation as well as winds also foreseeably contributed to contamination of non-target areas. The rainfall that followed the spraying in Santa Cruz County, for example, washed the pesticide into streams and rivers, resulting in deposition of a yellow froth along the northern shoreline of Monterey Bay in the vicinity of river outlets. Concurrently with the appearance of this pesticide froth, numerous waterfowl were observed drowning in near-shore areas, apparently the result of hypothermia induced by the "inert" surfactant (i.e., detergent) included in the pesticide's spray, which dissolved the protective oils on the birds' feathers. During and after the spraying, residents of Monterey and Santa Cruz counties reported the disappearance of birds from backyard feeders and baths, and the unexplained sudden deaths of family pets ranging from cats to rabbits. And, at least 643 persons filed reports with CDFA documenting injuries ranging from rashes and eye irritation to acute attacks of asthma and reactive airway disease. Plaintiffs Jack Wilcox and Nora Aron were among the many infants and children who suffered serious, and in some cases, permanent, injury as a result of the spraying.

**D. Background Regarding CheckMate LBAM-F and CheckMate OLR-F**

44. CheckMate LBAM-F ("LBAM-F") and CheckMate OLR-F ("OLR-F"), which were applied aerially to Santa Cruz and Monterey counties in September, October and November 2007, are synthetically manufactured semiochemicals, which are biochemical transmitters of information between living organisms. Lepidopteran pheromones, the active ingredients in both LBAM-F and OLR-F, belong to a subclass of insect pheromones that targets species such as moths and butterflies. The majority of lepidopteran pheromones used in pesticide formulations are known as straight chain lepidopteran pheromones ("SCLP"), because of their chemical composition.

45. The known ingredients of OLR-F are as follows: (Z)-11-tetradecenyl acetate, 11-tetradecen-1-ol acetate, polyvinyl alcohol, tricaprylyl methyl ammonium chloride, sodium phosphate, and polymethylene polyphenyl isocyanate. The former two ingredients are active ingredients; the latter four are known as "inert ingredients." According to EPA,

> an active ingredient is one that prevents, destroys, repels or mitigates a pest, or is a plant regulator, defoliant, desiccant or nitrogen stabilizer. By law, the active

ingredient must be identified by name on the label together with its percentage by weight. An inert ingredient means any substance (or group of structurally similar substances if designated by the Agency), other than an active ingredient, which is intentionally included in a pesticide product. Inert ingredients play a key role in the effectiveness of a pesticidal product.

http://www.epa.gov/opprd001/inerts/. The publicly-available label for OLR-F, under the section entitled "Precautionary Statements – Hazards to Humans and Animals" warns against "breathing vapor or spray mist," and advises the use of "chemical resistant headgear" in the case of "overhead exposure."

46. The ingredients of LBAM-F are as follows: (E)-11-Tetradecen-1-yl Acetate, (E,E) -9,11 Tetradecadien-1-yl Acetate, crosslinked polyurea polymer, butylated hydroxytoluene, polyvinyl alcohol, tricaprylyl methyl ammonium chloride, sodium phosphate, ammonium phosphate, 1,2-benzisothiozoli-3-one, and 2-hydroxy-4-n-octyloxybenzophenone. The former two ingredients are active ingredients; the remaining ingredients are inert. The publicly-available label for LBAM-F states that LBAM-F is "[p]otentially harmful if swallowed, absorbed through skin, or inhaled."

47. Of particular import, one of the inert ingredients in both pesticides, tricaprylyl methyl ammonium chloride ("TMAC"), has never received a tolerance or a tolerance exemption under the FFDCA. Nonetheless, it was sprayed indiscriminately over a large area whereby it was certain to come into contact with food products as well as cause direct exposure to the residents of the sprayed areas. The Material Safety Data Sheet ("MSDS")[2] for TMAC contains explicit warnings against the ingestion of TMAC. Specifically, the MSDS warns that TMAC is "harmful if swallowed or inhaled." Inhalation of TMAC "is harmful" and ingestion can cause "[b]urns to mouth, throat and stomach." The MSDS also warns that skin and eye contact with

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[2]Material Safety Data Sheets are documents warning of the ill effects of hazardous chemicals which are prepared by chemical manufacturers, importers and employers for hazardous products pursuant to the Occupational Safety and Health Administration's Hazard Communication System, 29 C.F.R. § 1910.1200(g).

TMAC can cause "severe burns" and "damaged skin."

48. TMAC is a member of a category of inert ingredients entitled "Inert Ingredients Permitted for Use in Nonfood Use Pesticide Products," which are permitted for certain uses in non-food use pesticide products. "Non-food inert ingredients" are those that are "permitted for use in pesticide products applied to non-food use sites, such as ornamental plants, highway right-of-ways, rodent control, etc." *See* http://www.epa.gov/opprd001/inerts/lists.html. By contrast, "food-use inert ingredients" are "[t]he only inert ingredients approved for use in pesticide products applied to food" because they "have either tolerances or tolerance exemptions in the C.F.R., 40 Part 180 (the majority are found in sections 180.910 - 960.)." *Id.* TMAC is not a member of this category. "Non-food inert ingredients" and "food-use inert ingredients" are mutually exclusive categories; a non-food inert ingredient may not be applied to food unless it has been authorized explicitly as a food-use inert ingredient. Because TMAC is a non-food use product it cannot legally be applied to areas where food is being grown.

## FIRST CLAIM FOR RELIEF

### (DECLARATORY RELIEF UNDER 7 U.S.C. §136 *et seq.*, 28 U.S.C. 2201 *et seq.*, and 5 U.S.C. 701 *et seq.*)

### (ALLEGED BY ALL PLAINTIFFS AGAINST ALL DEFENDANTS)

49. Plaintiffs incorporate and reallege the foregoing allegations of this Complaint.

50. In its July 2007 FIFRA exemption determinations for ORL-F and LBAM-F, EPA claims that it has evaluated all inert ingredients in LBAM-F and OLR-F, and based on this claim, concludes that the inert ingredients are of low toxicity and are cleared for use in products that come in contact with food. EPA relies on four prior FFDCA tolerance/exemption determinations in its analysis, yet none of those prior FFDCA determinations established a tolerance or exemption for TMAC, one of the inert ingredients in both ORL-F and LBAM-F. 40 C.F.R. §§ 180.910, 180.920, 180.930, and 180.960. In fact, as discussed above, TMAC is categorized as an inert ingredient permitted only for use in *non*-food use pesticide products – a category that is mutually exclusive with food safe inert ingredients.

51. EPA, by approving for use in OLR-F and LBAM-F an inert ingredient for which neither

a tolerance nor a tolerance exemption has been issued under FFDCA, violated FIFRA. Plaintiffs seek declaratory relief and relief under the APA declaring EPA's FIFRA exemption of the CheckMate pesticides invalid because it did not comply with the procedures established in FIFRA and arbitrarily permits the spraying of pesticides containing harmful inert ingredients over food production and residential areas. Because no FFDCA exemption or tolerance has been established for TMAC, the EPA's July 2007 FIFRA exemption decision for the CheckMate pesticides should be declared invalid by this Court.

## SECOND CLAIM FOR RELIEF

**(DECLARATORY RELIEF UNDER 7 U.S.C. §136 *et seq.*, 28 U.S.C. 2201 *et seq.*, and 5 U.S.C. 701 *et seq.*)**

**(ALLEGED BY ALL PLAINTIFFS AGAINST ALL DEFENDANTS)**

52. Plaintiffs incorporate and reallege the foregoing allegations of this Complaint.

53. EPA's July 2007 FIFRA exemption determinations for ORL-F and LBAM-F rely on prior FFDCA tolerance exemptions for the main active ingredients, the pheromones, which generally fall into the category of straight chain lepidopteran pheromones ("SCLP"). EPA relies on two tolerance exemptions: (1) an August 1995 exemption for use on all raw agricultural commodities (60 FR 45060) and (2) an August 2006 exemption amendment allowing application as a post-harvest treatment on all stored food commodities (71 FR 45395).

54. Neither FFDCA exemption, however, pertains to the wide-scale use of SCLPs on residential areas or in sensitive, ecologically important habitats. The 2006 evaluation of the safety of SCLP use is specifically limited to *post*-harvest treatment only. Similarly, the 1995 exemption does not purport to cover the type of generalized spraying envisioned in APHIS' FIFRA exemption application; moreover, its evaluation of health effects is limited, which was acceptable under the law applicable at the time but does not meet current standards. Thus, the EPA's reliance on these prior FFDCA exemptions is improper, as the following examples demonstrate:

a. Water Resources – Neither FFDCA exemption addresses the effects of wide-scale spraying on drinking water supplies and water-related natural resources. For example, the 2006

exemption concludes that "[n]o significant drinking water exposure is expected to result from the use of SCLPs when applied as a post-harvest treatment in or on all stored food commodities because they are applied in storage facilities, biodegradable, and are lowly toxic." This analysis fails to address large-scale, aerial application of the pheromones, which will release significant quantities of SCLPs into rivers, streams, lakes, and reservoirs, and therefore cannot support the EPA's FIFRA exemption allowing such application.

b. Dietary Exposure From Spraying Residential Areas – Neither FFDCA exemption addresses the effects of wide-scale spraying on residential areas and the potential for both acute and sustained dietary exposure to SCLPs through such spraying. Neither FFDCA exemption attempts to analyze, for example, dietary exposure through aerial spraying of a private individual's orchard, a school garden, or other private food production settings.

c. Exposure of Infants and Children – Neither FFDCA exemption addresses the effects of wide-scale spraying on infants and children to SCLPs. Notably, the 2006 exemption states that "there are no residential, school or day care uses proposed for this product. Since this use pattern is for agricultural food crops and indoor post-harvest treatment in or on all stored food commodities, the potential for non-occupational, non-dietary exposures to SCLPs by the general population, including infants and children, is highly unlikely." This assessment cannot be relied upon to support EPA's FIFRA exemption because it specifically *excludes* the type of exposure contemplated in the FIFRA application.

d. Dermal Exposure – With respect to dermal exposure, neither exemption addresses the type of dermal exposure expected in wide-scale spraying of residential neighborhoods. Again, the 2006 exemption is instructive. It states that "non-occupational dermal exposures to SCLP when used as a post-harvest treatment to stored food commodities are expected to be negligible because it is limited to agricultural use." The spray program contemplated in the FIFRA exemption is not "limited to agricultural use," and therefore the EPA's reliance on the prior FFDCA exemptions is improper.

e. Inhalation Exposure – the FFDCA exemptions do not address inhalation exposure of the type likely to occur under the FIFRA exemption. The 2006 exemption states that "non-

occupational inhalation exposures to SCLPs silicate [sic] when used as a post-harvest treatment to stored food commodities are expected to be negligible because they are limited to agricultural use." Here again, EPA's prior SCLP assessments do not cover the pesticide application considered under the FIFRA exemption.

f. Cumulative Effects – the prior exemptions do not address the cumulative effects of wide-scale spray application of the SCLPs. For example, the 2006 exemption states that "[t]he information available at this time indicates that SCLPs, when applied at a rate not greater than 3.5 g a.i./1,000 ft 2/year, do not have a toxic effect. Therefore accumulative effects from residues of SCLPs are not anticipated." This FFDCA exemption does not support EPA's FIFRA exemption, given the wide-ranging, repeated aerial applications of both OLR-F and LBAM-F and the slow-release polymer capsules, the effects of both of which are intentionally designed to be cumulative.

g. Endocrine Effects – in their analysis of endocrine effects, neither exemption addresses the possible endocrine effects of pheromone exposure on humans and animals in the spray area. The 2007 exemption concludes that "based on the weight of the evidence of the available data and the absence of any reports to the Agency of sensitivity or other adverse effects, no endocrine system related effects are identified for SCLPs and none are expected because of their use. To date there is no evidence that SCLPs affect the immune system, function in a manner similar to any known hormones, or that they act as endocrine disruptors. Thus there is no impact . . . ." The FFDCA exemptions do not take into account widespread and repeated application of pheromones on infants, children, the elderly, or chemically sensitive adults, or on ecologically sensitive habitats and therefore do not support EPA's FIFRA exemption of the CheckMate pesticides.

## THIRD CLAIM FOR RELIEF

**(DECLARATORY RELIEF UNDER 7 U.S.C. § 136 *et seq.*, 40 C.F.R. § 166.25(a)(1), 28 U.S.C. § 2201 *et seq.*, and 5 U.S.C. § 701 *et seq.*)**

**(ALLEGED BY ALL PLAINTIFFS AGAINST ALL DEFENDANTS)**

55. Plaintiffs incorporate and reallege the foregoing allegations of this Complaint.

56. EPA acted arbitrarily and capriciously in determining that an emergency condition existed prior to issuing the July 2007 FIFRA exemption for the CheckMate pesticides. EPA may only authorize an exemption once it determines that "an emergency condition exists." 40 C.F.R. §166.25(b)(1)(i). Per 40 C.F.R. §166.3(d), an "emergency condition" is defined as:

> an urgent, non-routine situation that requires the use of a pesticide(s) and shall be deemed to exist when:
>
> (1) No effective pesticides are available under the Act that have labeled uses registered for control of the pest under the conditions of the emergency; and
>
> (2) No economically or environmentally feasible alternative practices which provide adequate control are available; and
>
> (3) The situation:
>
> (i) Involves the introduction or dissemination of an invasive species or a pest new to or not theretofore known to be widely prevalent or distributed within or throughout the United States and its territories; or
>
> (ii) Will present significant risks to human health; or
>
> (iii) Will present significant risks to threatened or endangered species, beneficial organisms, or the environment; or
>
> (iv) Will cause significant economic loss due to:
>
> (A) An outbreak or an expected outbreak of a pest; or
>
> (B) A change in plant growth or development caused by unusual environmental conditions where such change can be rectified by the use of a pesticide(s).

57. EPA failed to properly undertake the necessary analysis to establish that "an emergency condition exists." 40 C.F.R. §166.25(b)(1)(I). It did not address all of the considerations required to make such a determination and therefore its FIFRA exemption for the CheckMate pesticides should be declared invalid.

## FOURTH CLAIM FOR RELIEF

**(DECLARATORY RELIEF UNDER 7 U.S.C. §136 *et seq.*, 40 C.F.R. §166.25, 40 C.F.R. § 166.20(a)(5), 28 U.S.C. § 2201 *et seq.*, and 5 U.S.C. § 701 *et seq.*)**

**(ALLEGED BY ALL PLAINTIFFS AGAINST ALL DEFENDANTS)**

58. Plaintiffs incorporate and reallege the foregoing allegations of this Complaint.

59. EPA may only approve an exemption under Section 18 of FIFRA if, among other factors, the agency determines that the "use of the pesticide under the exemption will not cause unreasonable adverse effects on the environment." 40 C.F.R. §166.25(b)(ii). Prior to making its determination whether the "use of the pesticide under the exemption will not cause unreasonable adverse effects on the environment," *id.*, EPA must "review the application [for an exemption] and other available data" in order to determine: "The potential risks to human health, endangered or threatened species, beneficial organisms, and the environment from the proposed use." 40 C.F.R. §166.25(a)(4). As discussed above, the EPA did not consider the impact of TMAC or the wide-scale application of SCLPs on "human health, endangered or threatened species, beneficial organisms, and the environment from the proposed use," and therefore failed to proceed in a manner prescribed by 40 C.F.R. §166.25(a)(4).

60. Additionally, 40 C.F.R. §166.25(a)(4) requires EPA to review the FIFRA exemption application and other available data in order to determine "[t]he anticipated benefits to be derived from the proposed use." EPA failed to properly make a determination regarding the anticipated benefits of the use of ORL-F and LBAM-F, in large part because of the dearth of application materials available to EPA at the time it made its determination. APHIS' application for a quarantine exemption fails to demonstrate the efficacy or necessity of LBAM-F as a means to eradicate LBAM, thereby failing to provide any basis for EPA to determine that the use of LBAM-F may be in any way beneficial. In purporting to make this determination despite the lack of available information, EPA acted in an arbitrary and capricious manner.

61. In addition to 40 C.F.R. §166.25(a)(4), another regulation, 40 C.F.R. § 166.20(a)(5), requires the application to "contain data, a discussion of field trials, or other evidence which provide the basis for the conclusion that the proposed pesticide treatment will

be effective in dealing with the emergency." APHIS' application fails to fulfill this requirement. There is no text in the application which purports to address the efficacy of LBAM-F as a tool for eradication of LBAM. Moreover, it is likely that APHIS could not have provided data regarding the product's efficacy in eradicating LBAM, since such information did not exist at the time that APHIS submitted its application. An August 20th e-mail from David R. Lance of APHIS' Plant Protection and Quarantine department confirms that "[a]lthough mating disruption is a proven control technique with LBAM, using it for eradication of LBAM, as well as use of aerially applied formulations, are both *largely untested strategies*" (emphasis added). Nor did EPA address any aspect of the efficacy of LBAM-F in eradicating LBAM, or the anticipated benefits of LBAM-F, in its letter authorizing the Section 18 exemption for LBAM-F. EPA therefore acted arbitrarily and capriciously in purporting to determine that the use of LBAM-F would be in any way beneficial, given the void of information in APHIS' application.

## FIFTH CLAIM FOR RELIEF

**(DECLARATORY RELIEF UNDER 7 U.S.C. § 136 *et seq.*, 28 U.S.C. § 2201 *et seq.*, and 5 U.S.C. § 701 *et seq.*)**

**(ALLEGED BY ALL PLAINTIFFS AGAINST ALL DEFENDANTS)**

62. Plaintiffs incorporate and reallege the foregoing allegations of this Complaint.

63. Pursuant to 40 C.F.R. §166.20, any agency applicant for a Section 18 exemption must provide EPA with detailed and comprehensive information about the pesticide proposed for an exemption, including "evidence which provide[s] the basis for the conclusion that the proposed pesticide treatment will be effective in dealing with the emergency;" and a "[d]iscussion of risk information," including "the potential risks to human health, endangered or threatened species, beneficial organisms, and the environment expected to result from the proposed use, together with references to data and other supporting information." 40 C.F.R. §166.20. EPA may then use this information to make its determinations pursuant to 40 C.F.R. §166.25. APHIS failed to fulfill these crucial data requirements in its application for a quarantine exemption for LBAM-F. In its applications for an exemption of LBAM-F from

standard FIFRA registration, APHIS provided a scant two-plus pages' worth of information purportedly fulfilling the range of data requirements set forth in Section 18.

64. Nonetheless, EPA authorized the exemption based on APHIS' application. By purporting to approve the application based on this insufficient information, EPA failed to properly proceed in a manner required by 40 C.F.R. §§166.20 and 166.25. Reliance on APHIS' incomplete application was arbitrary and capricious and therefore EPA's FIFRA exemption for LBAM-F should be declared invalid.

## RELIEF REQUESTED

WHEREFORE, plaintiffs request that this Court:

1. Enter declaratory judgment that the defendants' July 24, 2007 quarantine exemptions for ORL-F and LBAM-F are invalid;

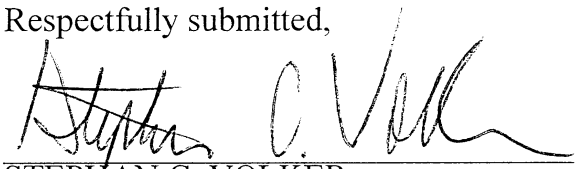
2. Enjoin the application of ORL-F and LBAM-F as contemplated under the EPA's July 24, 2007 exemption of the CheckMate pesticides pending a complete and proper analysis of the safety of such widespread application of the pesticides;

3. Enter an order awarding plaintiffs their costs of litigation, including attorney's fees, pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412 or as otherwise provided by law; and

4. Grant plaintiffs such other relief as may be necessary and appropriate.

Dated: November 25, 2008

Respectfully submitted,



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