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SUPERIOR COURT OF CALIFORNIA

COUNTY OF SANTA CRUZ

COUNTY OF SANTA CRUZ Plaintiff/Petitioner, 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, Defendants/Respondents.	Case No. 158516 **DECLARATION OF JASON M. HEATH IN SUPPORT OF EX PARTE APPLICATION FOR TEMPORARY RESTRAINING ORDER** Date: October 31, 2007 Time: 1:00 p.m. Dept: 8

I, Jason M. Heath, hereby declare:

1. I am an attorney at law licensed to practice before all the courts of the State of California. I am employed as an Assistant County Counsel with the Santa Cruz County Counsel's Office, attorneys for plaintiff/petitioner in this action. I have personal knowledge of the facts set forth below, and if called upon to testify thereto I could and would do so competently.

AERIAL PESTICIDE SPRAYING IS SET TO BEGIN THIS SUNDAY NIGHT

2. On or about September 21, 2007 the California Department of Food and Agriculture ("CDFA") disclosed that it intends to aerial spray the pesticide Checkmate on a large area in the

County starting on November 4, 2007. On October 3, 2007, CDFA filed a Notice of Exemption notifying the State Office of Planning and Research that it intended to embark on a project of aerial pesticide spraying in "the cities of Capitola, Santa Cruz and Scotts Valley as well as in the communities of Aptos, Felton, Live Oak, Opal Cliffs, Rio del Mar, Soquel and Twin Oaks" to eradicate the Light Brown Apple Moth ("LBAM"). A true and correct copy of this Notice of Exemption is attached hereto as Exhibit A.

ATTACHED TO THIS DECLARATION ARE DOCUMENTS REFERENCED IN THE COUNTY'S MEMORANDUM OF POINTS AND AUTHORITIES

3. CDFA's website contains a document entitled "Light Brown Apple Month (LBAM) Questions and Answers." This document purports to summarize the available information concerning the LBAM and experience throughout the world in the aerial application of pheromone substances. A true and correct copy of this document, which my colleague downloaded from CDFA's website, is attached hereto as Exhibit B.

4. On October 16, 2007, CDFA Secretary A.G. Kawamura and his staff appeared before the Santa Cruz County Board of Supervisors to present their plans to spray Santa Cruz County with Checkmate starting November 4, 2007. A true and correct uncertified copy of the recorded transcript of the Board's hearing is attached hereto as Exhibit C. The County is attempting to obtain a certified copy of the transcript and will provide it to the Court as soon as it is available.

5. On October 26, 2007, CDFA requested that Santa Cruz County Agricultural Commissioner Ken Corbishley issue a restricted materials permit to allow spraying to commence on November 4, 2007. A true and correct copy of CDFA's letter and application is attached hereto as Exhibit D.

6. Attached hereto as Exhibit E is a true and correct copy of the legislative history my office has been able to compile thus far on the Light Brown Apple Moth Act of 2007. The legislative history shows that the senate bill proposing this legislation was amended several times before it was passed into law. The June 21, 2007 amendments included proposed section 6050.1(d) of the Food and Agriculture Code, providing that "During the first 36 months of the operation of the Light Brown Apple Moth Program [CDFA's] actions pursuant to this act shall be deemed an emergency response for the benefit of the environment under Division 13 (commencing with Section

21000) of the Public Resources Code. During this period, the department shall complete the statutorily required environmental documentation." By the September 4, 2007 amendments this provision was being dropped from the proposed statute altogether. By the time the Act was passed and Chaptered, the above language had been replaced entirely with the following: "Eradication activities undertaken pursuant to this article shall comply with all applicable laws and regulations and shall be conducted in an environmentally responsible manner." (Final Version of Light Brown Apple Moth Act, Food and Agriculture Code section 6050.1(c)(2)(C)].)

7. Attached hereto as Exhibit F is a true and correct copy of the "Light Brown Apple Moth in California: Quarantine, Management and Potential Impacts, University of California Agriculture and Natural Resources Program, September 12, 2007." This document is available online at http://www.ipm.ucdavis.edu/PDF/PUBS/lbam091207.pdf.

8. Attached hereto as Exhibit G is a true and correct copy of the Environmental Assessment produced by the United States Department of Agriculture concerning the proposed aerial spraying of Checkmate to eradicate the LBAM population, which my colleague downloaded from the US Environmental Protection Agency's website.

9. Attached hereto as Exhibit H is a true and correct copy of the LBAM Technical Working Group's recommendations, issued on June 8, 2007. A copy of this document was produced by CDFA in the recent Monterey County litigation.

10. Attached hereto as Exhibit I is what I am informed and believe is a true and correct copy of CDFA Undersecretary George Gomes' September 28, 2007 "Proclamation of an Eradication Project Regarding the Light Brown Apple Moth."

11. Attached hereto as Exhibit J is a true and correct copy of a News Release from CDFA entitled "Pheromone 'Twist Ties' to Aid in Eradication of Light Brown Apple Moth." My colleague downloaded this document from CDFA's website.

12. Attached hereto as Exhibit K is a true and correct copy of an October 4, 2007 letter from CDFA Secretary A.G. Kawamura to Assemblyperson John Laird concerning the anticipated aerial spraying of Checkmate.

13. Attached hereto as Exhibit L is a true and correct copy of an October 26, 2007 letter

from CDFA Secretary A.G. Kawamura to Assemblyperson John Laird concerning the anticipated aerial spraying of Checkmate.

14. Attached hereto as Exhibit M is a true and correct copy of the County's complaint against CDFA in this case, which was filed this afternoon.

THE COUNTY HAS GIVEN APPROPRIATE NOTICE TO CDFA OF THIS EX PARTE APPLICATION FOR INJUNCTIVE RELIEF

15. Pursuant to California Rule of Court 3.123, on October 30, 2007 at approximately 9:45 a.m., I telephoned Richard Estes, in-house legal counsel for CDFA, and Deputy Attorney General William Jenkins, who represents CDFA in the Monterey County litigation concerning the LBAM aerial spraying, to inform them about this action and this ex parte application for injunctive relief. Also on October 30, 2007, at approximately 10:45 a.m., my assistant Maria Vargas telephoned the Court to reserve this matter on the Court's ex parte calendar pursuant to Local Rule 1.3.02(b).

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this Declaration was executed on this 30th day of October 2007 at Santa Cruz, California.

JASON M. HEATH

Notice of Exemption

Form D

To: Office of Planning and Research
P.O. Box 3044, Room 212
Sacramento, CA 95812-3044

County Clerk
County of _____

_____

_____

From: (Public Agency) Food and Agriculture
1220 N Street
Sacramento CA 95831
(Address)

Project Title: Treatment for Light Brown Apple Moth Santa Cruz County

Project Location - Specific:

The project is located in the cities of Capitola, Santa Cruz and Scotts Valley as well as in the communities of Aptos, Felton, Live Oak, Opal Cliffs, Rio del Mar, Soquel and Twin Oaks (see attached map)

Project Location – City: See above Project Location – County: Santa Cruz

Description of Nature, Purpose and Beneficiaries of Project:

The project will consist of the following; Aerial applications with a synthetic insect pheromone will be applied throughout the eradication area. The pheromone confuses the male moths, impairing their ability to find mates. Once the breeding cycle of the moth is broken, the light brown apple moth population is reduced and ultimately eradicated from the area. For monitoring, traps baited with the LBAM pheromone lure will be placed in the eradication area at the density of five traps per square mile. Additional traps may be added to further delimit the infestation and to determine the efficacy of treatments. All monitoring traps will be serviced on a regular schedule for a period of time equal to three generations beyond the date of the last LBAM detection. The project will benefit the community and agriculture producers in the area.

Name of Public Agency Approving Project: California Department of Food and Agriculture

Name of Person or Agency Carrying Out Project: California Department Food and Agriculture

Exempt Status: **(check one)**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☒ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: Class 8, Section 15308
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:

The project is exempt because it consists of specific actions necessary to prevent or mitigate an emergency. The project is also exempt because it consists of actions taken by a regulatory agency, as authorized by state statute, to assure the maintenance or protection of the environment where the regulatory process involves procedures for the protection of the environment.

Lead Agency Contact Person: Jim Rains Area Code/Telephone/Extension: (916) 651-9371

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☒ Yes ☐ No

Signature: _____ Date: 10-03-07 Title: Staff En. Scientist

☒ Signed by Lead Agency
☐ Signed by Applicant

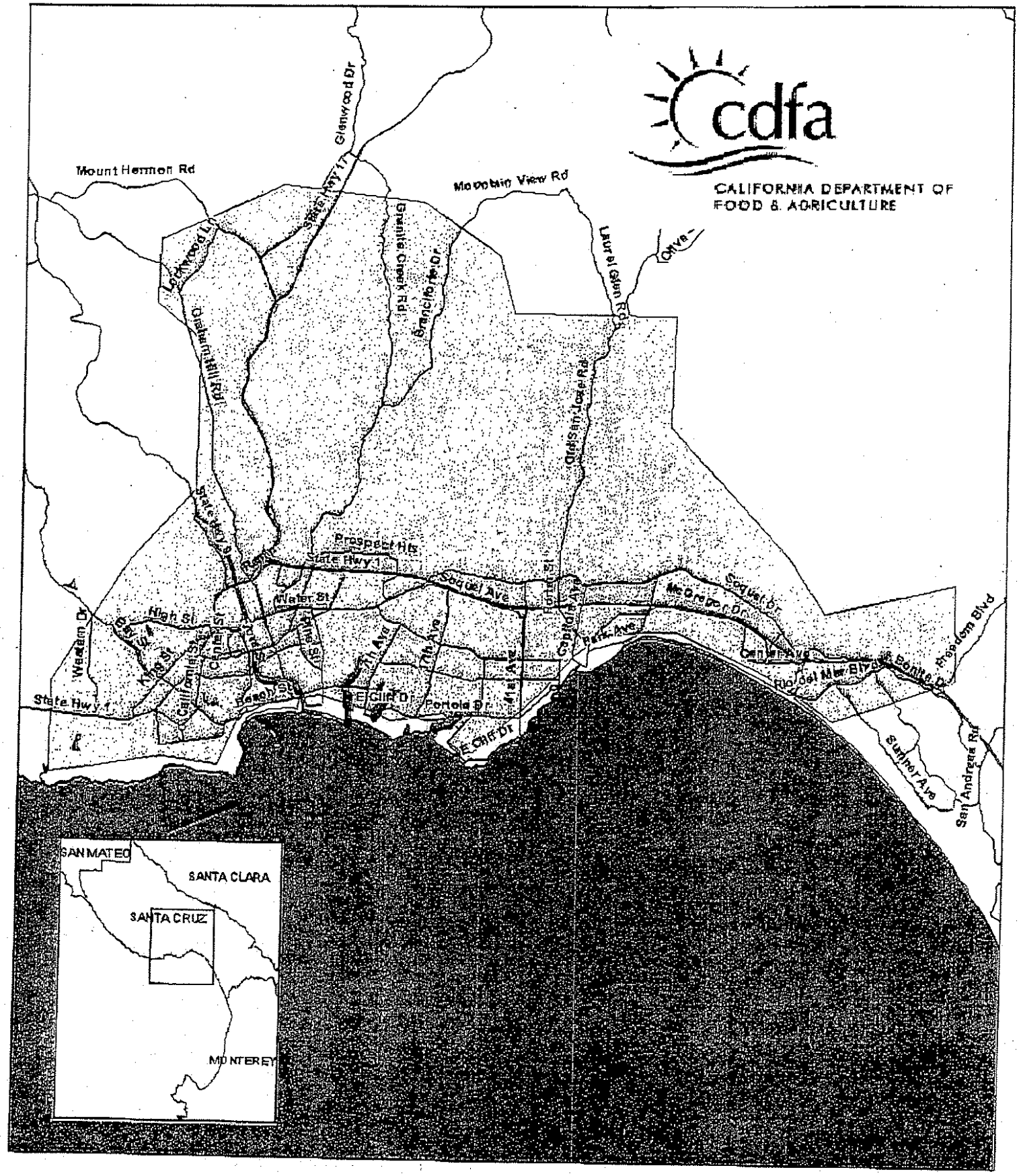
Date received for filing at OPR:

RECEIVED
OCT - 3 2007
STATE CLEARING HOUSE

Revised 2005

Received Time Oct. 12. 3:29PM

Santa Cruz Treatment Area



Light Brown Apple Moth (LBAM) Questions and Answers
Including information about pheromones, aerial treatment plans and other elements of the eradication effort.

Is the aerial application of this pheromone safe?
The pheromone materials Checkmate OLR-F and Checkmate LBAM-F have been reviewed and approved for aerial application by the federal Environmental Protection Agency (EPA) and the state Department of Pesticide Regulation (DPR). These pheromones and many others like them are present in our environment every day as many insects use them to attract mating partners or signal other behaviors. Humans and other mammals do not use these insect pheromones and cannot detect them. Studies of this pheromone in particular and about the interaction of pheromones and mammals in general have shown no evidence for concern about exposure to pheromones, even at much higher levels than those proposed for the aerial treatment of the Monterey Peninsula.

The EPA does not permit long-term human studies for any type of pesticide. Instead, the possibility of chronic effects is typically addressed by animal studies. Testing of the active ingredient on animals did not demonstrate any signs of poisoning. Proposed aerial treatments would apply a small fraction of the amount used for animal testing, indicating a large margin of safety for even the most sensitive groups.

In Australia, where the pheromone has been in use for several years, there has been no evidence of any health problems among the people living in rural areas where applications are made, nor among those who manufacture or apply the product.

The EPA has established that this is a very low toxicity material applied in a very dilute concentration. No illnesses related to the use of these materials have ever been reported, even by people handling concentrated forms of Checkmate or similar pheromone products used to control other insects. The State of California and US EPA have long maintained systems for tracking illness reports related to treatments. In addition, the USDA has certified this product and other pheromones for use on organic crops.

Related resources:
The EPA provides an online summary of its quarantine exemptions for LBAM pheromones. At the bottom of this web page, several additional references and resources are provided:
http://www.epa.gov/pesticides/local/region9/lbam_quarantine.htm

The online Federal Register includes an informative page summarizing EPA's determinations about lepidopteran (moth) pheromones:
http://www.epa.gov/fedrgstr/EPA-PEST/1995/August/Day-30/pr-388.html

Have moth pheromones been used before? Where?
Suterra, the manufacturer of Checkmate pheromone products, reports that moth pheromones designed to create mating disruption have been applied aerially in the US for about 10 years against invasive moth infestations in Florida, Texas, Arizona, Oregon, Washington, New York, Pennsylvania and Michigan. Moth pheromone has also been applied aerially in South Africa, Argentina, Chile, Italy and Spain. The differences between these pheromones and Checkmate LBAM-F are small, with adjustments made for the specific make-up of the moth in question.

The USDA reports that another manufacturer of aerial moth pheromone, Hercon, has applied pheromone in flake formulation in the greater Chicago and Madison WI areas for gypsy moth.

Pheromone treatments in general have an excellent track record against moths and other insect pests. Pheromones are a reliable method of treatment to control LBAM in New Zealand and Australia. LBAM is also present in Hawaii, but treatments have not been attempted there because of a number of factors, including the fact that the infestation is relatively small and restricted to higher elevations, and also because crop exports there are highly restricted and regulated due to a number of other invasive pest infestations.

Are the planes, treatment equipment and flight plans safe?
The contractor Dynamic Aviation, their planes and the individual pilots are required to be reviewed and licensed/approved by the Federal Aviation Administration (FAA). CDFA has contracted with this company for many years for aerial release of sterile Mediterranean fruit flies in the Los Angeles basin, and their safety record is unblemished. Detailed flight plans are submitted to local aviation authorities for review in advance. To ensure that no contamination of the pheromone product occurs, the mixing, loading and treatment equipment is required to be new and dedicated to this project. We will conduct sampling of the pheromone mixtures and follow a strict chain-of-custody procedure in the delivery of these materials for testing. Strict protocols are also in place for the purchase, transport, storage, mixture and loading of the material to be used in the treatment.

If the proposed application is safe, why does your literature and the product label mention precautions?
The EPA requires precautionary statements on every product it approves. The precautions on the label are relatively minimal when compared to the precautions typically seen on labels for conventional pesticides. Based on review and approval of this product by the EPA and the California Department of Pesticide Regulation (DPR), there is no human or animal health risk from exposure to the material during treatment. However, as we do with any aerial treatment, we advise those who wish to avoid unnecessary exposure to take simple precautions such as staying indoors or under cover, closing windows, removing laundry from outdoor lines, etc.

A complicating factor in this discussion is that a label for "Checkmate OLR-F" that has been circulated by members of the public is not the correct label for the product that will be used. The label that has been disseminated in error is appropriate only for treatments in agricultural areas where higher concentrations of the active ingredient are prescribed.

The warnings and precautions on this label are intended for trained workers who routinely and repeatedly handle concentrated, undiluted pesticide ingredients while they are being mixed and prepared for treatment. This information does not apply to those who may be exposed to a diluted form of the material to be used during an aerial treatment.

Why is this eradication project an emergency?
Data from our statewide insect trapping efforts shows that this infestation is a recent arrival to California. The populations of LBAM are still relatively small and are considered by an international panel of expert scientists to be eradicable if significant action is taken promptly. These moth populations can grow exponentially, going through approximately five generations per year with each female moth laying hundreds of eggs. Failure to act quickly could result in uncontrolled spread and substantial environmental and economic impacts.

Who decides whether or not aerial applications are necessary? How is that decision made?
At the direction of federal and state law, agricultural officials with the USDA and CDFA are responsible for eradicating invasive pests that threaten agriculture as well as the environment and natural habitat. Agency policy requires that we choose the most environmentally sensitive approach that will be effective against the infestation. For a project such as the eradication of the light brown apple moth, the agency secretaries are the primary decision-makers who rely on the scientific knowledge of staff as well as on consultations with their counterparts in health and environmental agencies and other experts. For the LBAM eradication project, CDFA and USDA appointed a technical working group of expert scientists to establish whether eradication is possible and, if so, to recommend the most environmentally friendly means of eradication. The proposed aerial treatment is a central element in that plan.

How long will the treatment project take?
Each aerial treatment would take approximately three nights to apply the treatment over the entire eradication area. Wind or other inclement weather could delay or extend the treatment schedule. A second, identical treatment is proposed approximately one month after the first treatment. Depending upon subsequent trapping data, additional treatments may be necessary.

How do you protect against drift?
The airplanes use pre-programmed GPS guidance systems to ensure even application of the treatment. The programming includes automatically turning the treatment off over bodies of water. The protocols call for treatment to occur only if wind and other weather conditions are within established limits.

How will these applications affect the environment, including the ocean?
Pheromones are among the most environmentally friendly treatments ever used to eradicate a pest infestation in California. While conventional pesticides kill insects directly, the pheromones applied in this effort will simply confuse the male moths so that they cannot locate a mating partner, and the infestation eventually collapses as breeding

subsides. Pheromones also have the distinct advantage of affecting only a very limited number of closely related insects while leaving beneficial insects and endangered species unaffected.

Concerns have been expressed about exposure of fish and other aquatic species to the treatment. However, the treatments will not be applied over bodies of water, including the ocean. The pheromone breaks down in water and all of the ingredients are biodegradable, so runoff is not a concern.

How would/does the light brown apple moth affect the environment?
Because the LBAM feeds on hundreds of different kinds of plants, it presents a threat to trees and plants in the natural environment as well as in crops and landscaping. Cypress and redwood trees, Monterey pine, oaks, lupines and many other native species are included on the extensive "host list" for this pest.

If the infestation is not eradicated, another important environmental effect would likely be an increase in the use of conventional insecticides by many residents, businesses and public entities acting to protect the plants in their gardens, landscaping, parks and other areas.

Will the pheromone harm the monarch butterfly? Are other moths affected by the pheromone?
Although moths and butterflies are similar insects, the pheromones used by separate species are different. Monarch butterflies are not attracted to the light brown apple moth pheromone and will not be confused or otherwise affected by it. The pheromone treatment is water-based and contains no oils or other materials that would pose a threat to the Monarch population.

In the pheromone-based traps that we use to detect LBAM, we have trapped only limited numbers of five closely related moth species, further indicating the highly specific nature of this pheromone. Two of the five other moth species are also invasive, unwanted pests, although they do not pose the same level of threat as the LBAM. Because these other moths are permanently established in the surrounding region beyond the limits of the LBAM treatment area, any reduction in these populations would be expected to rebound after LBAM eradication treatments subside.

How would/does the light brown apple moth affect the economy?
The current LBAM infestation has already caused the nations of Canada and Mexico to impose onerous restrictions on exports of crops and plants from the infested areas of California. China also has begun the kind of information gathering that frequently leads to such trade restrictions. As businesses are forced to delay, reduce or abandon exports to these nations, employment, investment and tax levels are all adversely impacted. Internally, restrictions are also imposed by CDFA and USDA on businesses such as plant nurseries in the infested areas so that their counterparts outside of the area can be protected from the infestation. These businesses must comply with strict regulations that limit or delay the companies' ability to export their plants outside the area. If the

infestation is not eradicated, these regulations and trade restrictions would continue indefinitely and other countries would likely adopt similar measures.

What are the inert ingredients in the treatment? Are they safe?
The inert ingredients in the formulation are water and biodegradable elements used to delay the release of the active ingredient so that the treatment will be effective for an extended period of about one month. The basic biodegradable "building block" is urea, a normal constituent of the human body that is derived from the breakdown of proteins that we eat.

How will I be notified about the treatment?
As required by state law, CDFA notifies all known residents of a treatment area by first-class mail in advance of an emergency treatment.

How will you notify homeless people and others without a permanent address?
In addition to sending the required first-class mailings to residents, we will work with local news media and elected officials and staff at the city and county levels to get the message out about the treatment schedule and other elements of the project. We also share information about the treatments in advance with local homeless shelters, farm worker organizations and other groups that have been brought to our attention by local officials or have requested information.

Why are Pebble Beach and Carmel not included in the proposed treatment area?
Portions of both Pebble Beach and Carmel are included in the proposed treatment area, while other portions of these communities are not. The treatment area is based on two factors: the biology of the pest (i.e., the distance it is capable of moving during its life cycle) and the location of the trap sites where moths were detected. Traps are distributed at a consistent ratio throughout the entire region so that the infested area can be determined with a high degree of accuracy. CDFA staff generate a GPS-driven map based on these factors, then draw a final boundary using the closest available roads or other physically identifiable lines.

How have you communicated with environmental regulators? What have you communicated?
We have provided details of our proposed treatment to a number of local, regional, state and federal groups including the United States Fish and Wildlife Service, the California Coastal Commission, the National Marine and Fisheries Service, the Monterey Bay National Marine Sanctuary and the Central Coast Regional Water Quality Control Board. Communications have included meetings, e-mail, telephone and mail. We also work with local news media and elected officials and staff at the city and county levels to get the message out about the treatment schedule and other elements of the project. The information includes details about the program components, treatment schedule, the affected area, the pheromone, and the availability of a toll-free number for further information.

When will you develop an Environmental Impact Report (EIR)?
This pest has the biological ability to multiply quickly, so eradication efforts can only be successful if the efforts begin immediately. CDFA has declared an emergency to allow the eradication to begin under a temporary exemption from environmental analysis, with the understanding that a full environmental assessment of the project, including these emergency treatments, will be required. That assessment will likely take more than a year to complete.

Why not just let the apple moth be?
If we do not eradicate this infestation, the moth would eventually multiply and spread to other areas of California, the United States and beyond. Farmers, residents, municipalities and other entities would repeatedly use pheromones and other, more toxic pesticides to suppress the infestation and protect their crops, landscaping and habitat. Populations of threatened and endangered species could be severely impacted should this moth adapt to feeding on them or competing with them for food or habitat. The impact on agricultural production of crops that are hosts of the LBAM could reach $160 to $640 million annually in the currently infested counties in California (source: USDA). Additionally, California would likely be placed under perpetual quarantine by neighboring states and trading partners around the world, restricting our ability to export crops and plants. Canada and Mexico have already imposed such restrictions, resulting in delays, added expenses and reduced export business for local growers.

Should I be worried about my pets?
EPA's review of this pheromone product indicates it is highly specific for the apple moth and does not affect mammals. Pheromones are used by insects to trigger behaviors such as mating, but mammals do not use these same signaling systems. The pheromone is undetectable to humans, pets and other mammals.

Should I take any precautions inside my home?
The treatment will be applied as a mist in a mixture that is mostly water, which carries the pheromone down to the surface (trees, rooftops, plants, ground, etc.). This method of treatment makes it unlikely that the material would directly enter homes or other buildings. However, if it were to do so, health officials have established that this is a very low toxicity material applied in a very dilute concentration. The State of California and US EPA have long maintained systems for tracking illness reports related to treatments and no illnesses have been reported, even in people handling concentrated forms of Checkmate or similar pheromone products used to control other insects. Based on this lack of reported illnesses, no precautions are necessary inside the home. Residents who wish to take precautions may close doors and windows to further minimize exposure.

Will the paint on my car be damaged? Should outdoor play equipment be hosed down after applications?
Testing performed by the United States Department of Agriculture and decades of experience with aerial pheromone treatments in the U.S. and other nations has resulted in no reports of damage to automotive paint, outdoor furniture or other common outdoor surfaces. Based on this information no action is suggested to protect these items.

What about outdoor public gatherings on the night of applications?
CDFA is in contact with local officials, school districts, etc. and has been made aware of evening and night events in the treatment area. The treatments on these nights are scheduled so that the specific sites in question are to be treated in the morning hours toward the end of the shift, after the activities have ended.

Should people stay away from public parks and schools the morning after applications?
It is not necessary to stay away from treated areas after the treatment. Health officials have established that this is a very low toxicity material applied in a very dilute concentration. The State of California and US EPA have long maintained systems for tracking illness reports related to treatments, and no illnesses have been reported, even in people handling concentrated forms of Checkmate or similar pheromone products used to control other insects.

Why can't twist ties be used instead?
Application of twist ties infused with the pheromone is effective in very small areas, such as the 200-meter radius around an individual moth find or a similar area around a handful of tightly contained finds. In such a case, 40-50 staff require about four days to apply an average of about 30-40 twist ties to the trees and plants on each property. Extending such an effort over the proposed 60-square-mile treatment area along the Monterey Peninsula would require 62,000 staff and more than 9 million twist ties. The idea was considered and rejected primarily because of the insufficient supply of twist ties available for use—it would take a minimum of several months for the manufacturers to produce the necessary supply of twist ties, by which time the moths would have multiplied through several additional generations and the infestation would no longer be considered eradicable. The extraordinary staffing and budgetary elements of an operation of this magnitude were also considerations in rejecting this alternative.

Why is Monterey being treated before Santa Cruz?
Experts within the USDA, CDFA and a Technical Working Group of moth and eradication experts from around the world have recommended a progressive series of steps toward eradication of this infestation. The general principle of the eradication effort is to work from the outer edges of the infestation inward toward the core. The specific treatment recommendations began in the summer of 2007 with the deployment of pheromone twist-ties around a number of "outlier" sites where single moths or small numbers of moths were detected in traps that were in relatively isolated locations. Working inward from these fringes of the infestation, the next recommended step is aerial pheromone release over the Monterey peninsula. The series of treatments would be followed by continued trapping to determine the rate of success of the treatments and to indicate what additional steps may be necessary.

Who is paying for this?
The USDA has provided the bulk of the funding for treatment as well as for the other activities in this program, including plant and crop inspections, traps, outreach and other elements. CDFA and local agricultural officials have also contributed to the project.

What if the pheromone treatment doesn't work?
The pheromone treatments are a central part of a multi-year project that will require multiple tools to be successful. We have already contained the infestation by imposing quarantine restrictions and inspections on plant and crop shipments, and we have suppressed the infestation by deploying pheromone twist-ties in several locations around the fringes of the infested areas. The proposed aerial treatments are the next step in the eradication process. Based on the history of pheromone treatments for this pest in Australia and New Zealand and for similar pests here in the U.S., we have confidence in the success of the proposed treatments. However, if the overall eradication project is not successful, we would have to reconsider whether eradication of the pest is possible under the circumstances. If not, the goal would then become suppression and containment of the infestation over the long term in order to minimize the environmental and economic impact of the infestation.

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

OCTOBER 2007
Prepared by the California Department of Food and Agriculture. For the most current version of this document, please visit the department's LBAM web site at www.cdfa.ca.gov/phpps/PDEP/lbam/lbam_main.html

To Santa Cruz County Board of Supervisors
October 16, 2007
7:00 p.m.

Verbatim transcription of regular agenda item number 44: Presentation to consider California Department of Food and Agriculture proposed treatment for Light Brown Apple Moth

Chairperson Beautz: If we could come to order, um, evidently before we actually start, people have been, you know, asking what our procedure will be for this meeting which is the procedure we use, um, all of the time. Um, these lights on the podium indicate how long people can speak, there's a red, yellow and green, similar to a traffic light. How many people intend to speak this evening? Well, the main goal is to, um, hear information from, um, hopefully everyone so I think we're going to put a two minute limit on this because otherwise people <unintelligible > we will not get through all of you and some people will not get to speak at all. I, um it's somewhat of, you know, an art to speak briefly, but I think that it's very effective when, you know, we want to get to hear from everyone.

Let me explain the procedure. We will, after we are gonna have introductions, we are then going to have a presentation by the people who are our guests this evening. We have asked them to come here to give us information. Um, I certainly know that they will be treated respectfully. If we-it is important for us up here to be able to hear everybody. It is important to those who are not speaking at the moment to, you know, not have this kind of underlying buzz and, um, and so forth, or else we can't hear. And the floor belongs to the person speaking at the moment and I'm sure we are going to have a very respectful meeting, and if we don't have a very respectful meeting, we'll cease the meeting. I mean, we just will need to do that. So, um, we will figure two minutes per person. We will use the lights system, which will give you a warning as your getting to the end of your comments, but try to gauge your comments to that time frame so that we can hear from everyone.

So I'm going to ask Susan Mauriello our CEO to, um, give some introductions and then we will have the State presentation.

Susan Mauriello: Yes, good evening, um, this is a 7:00 p.m. scheduled presentation to consider the California Department of Food and Agriculture's proposed treatment for the light brown apple moth. Before the Board there is a letter of the Agricultural Commissioner dated October 5th with attachments; there are letters from A.G. Kawamura dated September 28th of 2007 and there's also a letter of Osama Al Lissy dated October 4th. Uh, subsequent to the printing of the agenda, there's been, um, many pieces of correspondence that have, uh, come in in the form of, um, letters and, uh, e-mails, so those are received and are part of the record. In addition, there's been some handout material that has been distributed by members of the public, as well as by the California Department of Food and Agriculture.

Uh, this evening it's my pleasure to introduce you to A.G. Kawamura, who is the Secretary of the California Department of Food and Agriculture and we're really delighted to welcome him to Santa Cruz County. And we know that it is, uh, that he's here today to deliver to us some, uh, very serious and compelling information and we appreciate, uh, his presence here. Uh, Mr. Kawamura was appointed by Governor Schwarzenegger in November of 2003 as our Food and Agriculture Secretary. He is a third-generation farmer; both a grower and a shipper from the Orange County area where his family uh continues to grow strawberries, green beans, and other specialty crops. He's a graduate from UC Berkeley and has a long and distinguished career of public service to his community and to agriculture um as well.

At the time of his appointment, he was a member of the California State Board of Food and Agriculture and he had served since 1998. He is the immediate past chairman of the Agricultural Technical Advisory Committee, a USDA advisory position for international trade. He's also held board positions with the California Department of Food and Agriculture's Western Institute for Food Safety and Security, a partnership with UC Davis and with the California Institute for Specialty Crops a partnership of the CalPoly San Luis Obispo um School. He's also served as a past president of the Farm Bureau, and again, has a long and distinguished career of uh community service, so it's really my honor this evening to introduce you to him. Mr. Kawamura.

Kawamura: Thank you very much, and uh, honorable Supervisors. Madame Chair, thank you for having us here today, this evening. We're certainly hear to talk about some of the concerns and questions that come about, uh our eradication proposal and program, uh, here in this area for the light brown apple moth it's, uh, an insect that many of us know more about today than we ever thought we could or would, and its something that certainly though, still raises concerns still raises questions, and our objective today is to be able to answer many of those questions, many of those concerns.

Um, in response to a letter that was written to me, uh, by Assembly member John Laird, Chairman Laird made a pretty good list of requests and a request for information that he felt was lacking based upon some of our earlier presentation, uh, over the past month and a half. In our response letter, which was dated October 4th, we tried to respond to most of those questions in the best way that we could with the information had at the time. Since that letter October 4th, there has been more information that has come forth and certainly we'll try and address some of that today that helps address those concerns, those questions about our eradication process for the light brown apple moth.

Uh, tonight I know time is limited, so what I'd like to do is ask some of my staff, expert staff that's here today to be able to give you just that-a presentation that gives you an updated over view of some of the information that has been out there for many months and its with that intention that we're, hopefully we answer some of the hard questions and some of those—

Beautz: Okay.

Kawamura: --then hard concerns. So what I'd--

Beautz: Thank you

Kawamura: --like to do at this time is ask John Connell, our division director and the director of this project to go ahead and start with a presentation that he has, and then we'll have other, uh, experts as well participate in that presentation. So thank you very much for your attention.

Beautz: Thank you.

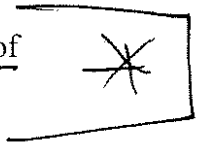
Connell: Good evening, and thank you for having us this evening to uh, talk about the light brown apple moth in California. Could we go right to the first slide please? One of the first questions that's come up very frequently is why is this an emergency, why now, um, we should point out that in 2005, part of our statewide detection trapping program included traps here in the Santa Cruz area as well as parts of the San Francisco Bay Area, Central Valley, and Southern California for the Light Brown Apple Moth. A ll of those traps came up negative.

In 2007, when the moth was identified in Berkeley for the first time, um, we quickly deployed traps throughout the Bay region, uh coastal zone down here, and all the way ultimately all the way through the State. The only moths that have been found have been found in the San Francisco Bay Area and here on the Coastal Plain with a single down in the Los Angeles area. A lot of the same areas that were trapped in 2005, in the Santa Cruz area were in 2007, yielding traps. That's part of the evidence as to why this is a recent introduction.

The professor who found this moth originally in Berkeley also had been trapping for years and years and years and had not recovered this moth out of the, out of the, uh, San Francisco area. Um, when, when the moth was first discovered, the USDA um, um, assembled a technical working group of experts from around the world-New Zealand, Australia, United States, including University of California as well, to review the science around, the science of around the um, light brown apple moth situation and our trapping results and made a recommendation to the USDA and to CDFA that the opportunity exists still to eradicate Light Brown Apple Moth from California-um, a unique opportunity that the Australians did not get because it's native to Australia, and the New Zealanders did not get because it invaded New Zealand well over a hundred years ago, before technology such as traps and pheromone treatments were obviously available.

The nature of this pest is something that's, I guess, unique to those category of pests, invasive species, that threaten California and United States that they have extensive host lists. It's not something specific to a single crop, or single commodity it's going to attack well over 2000 species of plants now that have been identified. I suppose that's a unique adaptive trait for something that has comes out of Australia and it's, and it's relatively hostile climate down there. The more things you can survive upon, the better your

chances are for survival. Another characteristic of this pest is it can do four to five generations per year in California, um and it depends on the temperatures at the time of year the cooler it gets, the slower that generation, or lifecycle will go. The warmer it gets, the faster it goes.



The pest risk analysis produced by the USDA, uh, on this pest indicates that it could probably inhabit eighty percent of the landmass of the North American Continental United States. Um, because it has such a wide host risk, and an ability to adapt to a wide range it also has the ability for, basically, uh uncontrolled spread. It did not come with its natural predators and pests, and, and, parasites that you would find, that you would find in Australia. It came by itself, and could rep—with that kind of reproductive potential, of up to five generations per year, could grow very rapidly and fill an environment — environmental niches all throughout California and ultimately, through North America. When that kind of thing happens, certainly you're going to have environmental impacts on, on threatening endangered species here in California and United States, as well as economic impacts, to uh the agricultural industry, as well as economic impacts to, um, you know, I guess quality of water, quality of environment issues as mitigations are applied against invasive pests such as this. Next slide please.

As I think I mentioned, this is the first time this moth has ever appeared on the, in North America. Um, it hasn't ever been found Mexico, hasn't ever been found in Canada, our trading partners. Um, it, as I indicated, it does represent a significant, um, risk to our environment and our economy, our agricultural economy in particular because of its high potential for reproduction and its ability to invade many different types of host's environments. Next slide.

<unintelligible> talked about a little bit about all the plants it can do. In California on its host list there's Cypress, Oak, Willow, Monterey Pine, Redwood, and Lupine. Those are plants in our natural environment. Now, part of the question that's come up to, is well, why don't we see that damage? This is an early introduction. You're just seeing the moth beginning to reproduce in this new environment, and it's filling in niches gradually, um, and if left to its own devices and not eradicated, it will start to show up impacts on all of these things on this slide, not just the native species, but the horticultural plants, roses, shrubs, landscaping, and then of course, in the agricultural community, um, this being one of the um, most, um abundant agricultural communities in, in California, the Santa Cruz-Monterey Coastal area, it will affect a lot crops, um, many of which right now are being quarantined. Um, next slide please.

And, at this point, we started talking about the economic impact and, and the threats to uh, uh California, I'd like to have uh, Helene Wright, who is the State Plan Health Director for USDA for California, uh talk a little bit about the regulatory impact of , of what a pest like Light Brown Apple Moth means to California and a little bit about the questions about the economic impact as we've seen it and , and compare it, or contrast it to, um, uh, Australia and New Zealand.

Wright: Thank you, and on behalf of USDA I also want to thank you for having us here-

Unidentified Speaker: I don't think you are, um, push that little…

Wright: …so on behalf of USDA, I'd also like to thank you for having us tonight. To talk a little bit more about what happens if nothing is done, right now we are at the very early stages of this infestation. If we get to the point where we're actually seeing a lot of damage out there, it will probably be too late to do anything. So that's why were really anxious to get started on this infestation as quickly as possible. And also, there will be increased use of pesticide because, as you know, when people have to deal with insects in their garden or farmers have to deal with it in their crops, they have to use some kind of control. And because they are already quarantine restrictions on California, and, by the Federal and the State government because other states, other countries are concerned about this moth. They are already having to use some of those chemicals in order to move their product.

In all of California potentially could be in a potential, in a perpetual quarantine situation. These are the kinds of situations where USDA and CDFA, the State and the Federal Government work cooperatively on these kinds of programs. We do not have the authority at the USDA level to quarantine less than entire state. So it means that the State government needs to step in and do that. And then we lay a Federal quarantine on top of it. However, if the State does not, is not able to take the action necessary, we have to protect the rest of the U.S. and <unintelligible> trading partners as well. And so if the State does not assume that responsibility. Then the Federal Government may come in and take over the program and do what need to be done. So that's the situation we're trying to avoid.

We want to make this a cooperative program, we're trying to get this eradicated as quickly a possible. And the concern is that the moth will eventually spread to the rest of the United States and perhaps beyond. This is the first time this moth has been found on the North American continent, so Canada is very concerned, Mexico is very concerned, and they're already, Canada and Mexico have already imposed restrictions on commodities. In some cases commodities from throughout California, not just the eleven infested counties. We've been working long and hard with our trading partners, trying to come up with agreements that allow those products to move. And if we are not pursuing eradication, if we get to the point where it's just a control program, probably those restrictions will be even harsher. Next slide please.

Populations of threat—threatened and endangered plants species could be severely impacted. This moth feeds on a wide variety. Two thousand species in California, two hundred and fifty feed crops or ornamentals. So this is a wide range pest. This is not just targeted to one or two species. The impact in the 11 counties alone, the estimated, the economic analysis the USDA did is between a hundred and sixty and six hundred and forty million dollars. If this pest were to get out into the rest of California, it could go as high as two point 4 billion dollars. That's four times the amount you see here, or almost. This estimate does not include the cost of pesticide applications or the regulatory control. This is just dealing with yield loss. Next slide please.

We've been asked, 'well what happens in Australia? What kind of damage are they seeing?' Well if you look at these four crops, grapes, apples, oranges and pears, you'll see that for oranges alone, it's over six million dollars a year. Next slide please.

Kawamura: Helene, what are those costs again, please?

Wright: It's over six million dollars a year for oranges and actually, um, in some cases, it can be up as high as twenty million dollars per year. In oranges, it scars the fruit and causes fruit drop. In New Zealand, the main concern is grapes because what it does is it gets in the middle of the cluster, and then it hides in there, but it still continues to feed, and then rot sets in and you lose the entire cluster of grapes.

Supervisor Coonerty: What did you mean when you said that in some cases it <unintelligible> was twenty million?

Wright: If you add up all the costs, depending on how, how bad the infestation is, how many crops it covers, it can be as high as twenty million dollars.

Coonerty: As opposed to the six million shown there…

Wright: I'm talking for about all commodities, this is just for selected ones. Next slide. As you can see from this slide, the highest cost is in the spray to control. And if not eradicated there will be <audience noise> more spraying…

Beautz: Excuse me…

<Audience laughter>

Beautz: She's speaking, and we will just wait until everybody gets quiet, if that's what it takes. Thank you.

Wright: There will be more spraying, not less. And the difficulties with this pest is that it is a leaf roller, so that it attaches itself to the side of the leaf and kind of rolls it on itself, which makes it even more difficult to control because it's kind of hidden it sits in its webbing within that leaf and feeds until it finally becomes an adult moth. In looking at backyard production in Adelaide and Melbourne, in Australia, they're looking at eighty to one hundred percent losses in some cases. That's how bad the infestation can get. Turning it back to John.

Connell: Next slide please. So one of the questions, one of the questions that has come up is, you know, what else is going on? I mentioned earlier we implemented a statewide trapping program. The results of the statewide trapping program showed that, the, uh, infestation exists in the San Francisco Bay region, the Coastal zone her of Monterey through Santa Cruz Area, um, if it had existed all up and down the Central Valley, if it existed all up and down um, Southern California, we wouldn't be talking about

eradication program, uh, the facts would be clear, we would be living with a new pest in California. But that's not the case the indications are that's it's just here in these areas and still at a stage where if appropriate action is taken we can, we can, achieve eradication. <unintelligible> spoke about the technical working group and their recommendations, another important step that we've taken, and Helene mentioned this, is the quarantine process.

Once the light brown apple moth was discovered, quarantines went into effect to, um, stop the movement. The man-made, or man-supported movement of this pest to its primary rapid expansion in, uh the nursery industries, um, the, the moth and the, the larvae were discovered in nurseries, those nurseries were put in on a hold a lot of those nurseries shipped, um, uh, regionally in California, and that's how we believe the infestation moved I mean, with the, I think with the nature of the, of the, uh, moth finds here in the Santa Cruz-Soquel area, uh, is indicative that the pest was probably introduced into this region inadvertently, got into the nursery systems, and because the nursery system is a commercial process where they are shipping nursery stock to,um, the East Bay, up the Peninsula, you know over into, uh, into the urbanized and growing areas, uh, around Silicon Valley that, um, the moth went with when, when those shipments were made. Now that those shipments are under regulatory control, um, you know, the spread of the moth seems to have stopped. We don't, we're not finding it out in the Central Valley, we're not finding it intercepting it around the State, its only being found trapped in those areas where we initially discovered it earlier this year. We did initiate eradication efforts and I've described this the program, the the nature of this program…<end of tape three>

<Begin tape four>

Connell (con't): …is to try to work this infestation from the outside in. And given the availability of materials of this, of materials to, uh, initiate eradication we began with ground treatments in outlying infestations in Napa and Oakley, over on the north and east side of the infestation where we found single moths um, and were treating a 200 meter radius. We started with the use of BT, uh short for Bascillus Therengeonsis (sp) it's a bacterial, uh, uh, based pesticide that's that's effective on uh, um, moths and caterpillars, um moths and butterfly caterpillars. It's it's kind of specific to just that grouping of of insects and not a broad spectrum. We began those treatments and then as the, um,um uh pheromone for the Light Brown Apple Moth started to become available from manufacturers in the form of twist ties, we were able to switch that eradication program in those locations to twist ties. That amounts to, basically a two hundred meter radius amounts to about thirty acres roughly a hundred houses, hundred properties inside that area, uh to do, um to do the twist ties. Um, that same twist tie technology was then applied in Danville, Dublin, and an outlying site in South San Jose area. On the southern end of the program, we began eradication efforts in Monterey/Seaside area with an aerial application of Checkmate-OLR-F. That is a <unintelligible> formulation of the same, uh, excuse me of the um, uh, omnivorous leaf roller pheromone, uh, and that was on about 36 thousand acres down in that area, the idea being we're beginning to seal off the southern end of the infestation. And the proposal that is here for the Northern Monterey County

and Santa Cruz Area is to complete the closure of the southern end of um, the infestation, with an application of the Checkmate LBAM-F in 2007, and we'll get into a little more detail about that a little bit later in the presentation. The point is that eradication efforts were undertaken with not only our quarantine activities, but we've already started eradication areas on the edges of the, of the infestation with the idea of pushing it back to the center. One of the recommendation of the Technical Working Group was in 2007, begin this process and and recognize that here in Santa Cruz, uh, that we're, really what we're talking about is getting an application in in 2007 as a suppressive technique and moving on into 2008 with the rest of the eradication. Um, part of that process, and, and we're still engaged in it today, and I think Susan was a part of that, uh, those discussions in the earliest phases of this, was reaching out to the local county and state officials about uh the nature of the problem the potential solutions to the problem, and then trying to communicate those details to the public. We held public sessions in Napa, and Oakley, and all of the other places that I have already mentioned and held public meetings in the Monterey/Seaside area and the response was that's still not enough, and so we held an additional public hearing down in the in the Monterey area. Next slide, please.

The, uh, eradication program is as I've somewhat indicated already is, is mating disruption technique to begin the Fall of 2007, I've already talked about the eradication things, uh activities we've been doing on the outliers and the idea of suppressing the heavier populations. The proposal is for two aerial releases of of pheromone in the Seaside/Monterey area thirty days apart. The first one with Checkmate OLR-F uh, the second will be uh, Checkmate LBAM-F. We're proposing one aerial application in North County Monterey, and Santa Cruz County over the Santa Cruz area here that we've described—Santa Cruz, Capitola, uh, as shown in your maps, um in 2007 of Checkmate LBAM –F. Twist ties I've already described in all those cities, um up there on the slide, and the goal being basically to suppress the moth in 2007. In 2008, beginning in the spring, we would, we would expand the uh eradication uh program through the rest of the coastal plain, um starting in the spring, probably February or March depending on how the weather and the traps catches on moths go, we would treat for at least two life cycles, and uh, and then monitor. That means probably uh, throughout the course of 2008, treatments would have to occur uh, for eradication of Light Brown Apple Moth. The potential exists that because of the nature of the infestation, particularly here in the Santa Cruz area, that there might have to be some follow-up treatments in 2008. I would envision, and I maybe I should point out right here is this this um Checkmate LBAM-F confuses the moth, its mating disruption we'll see that in just a second. Its not something that when you put it out there that you're actually going to kill the moth and see the population disappear just like that you might see—you might see a conventional insecticide. Meeting disruption from here on that side… excuse me this is that the proposal I've come to discuss here but the bottom here you see in the pink in the—in the <unintelligible >is the pheromone in the Monterey Seaside uhh… uhhh.. <unintelligible> zone umm.. that was complicated early this year , the second one is <unintelligible> then you see near the center as well where Salinas right around the Prunedale area and then the one up North around the Santa Cruz area those were the proposed areas for the Fall of uh.. 2007 as we're here to discuss tonight.

Coonerty: Could you just uh explain what <unintelligible> 2008 because um if these were right up to additional spreading or >unintelligible> traps per-eradication?

Connell: There would be additional spreading, just like we.. we're discussing in um detail coming up.

<unintelligible> moth attracts the Light Brown Apple Moth and a few close relating species like <unintelligible> umm.. also pest moths works by constringing the male so that they cannot find the female scent, the object is to disrupt the moving cycle and it doesn't actually kill the moth it's just disrupts the moving cycle so that they can't find the <unintelligible> ultimately they die, have <unintelligible> or they expire from their natural life cycle. It doesn't have effects on non-target insects including butterflies such as the monarch or the <unintelligible> coastal blues which are threatened and endangered and it needs the USCPA and California Department of Pesticide Regulation requirements for the protection that humans have on the environment.

Next slide please… also..oops.. there we go..We're trying the get a representation here of what the pheromone process.. how it works uh for the moths. This is a representation of the female moth when she's looking for a mate she sends off a pheromone<unintelligible>and drifts off in the <unintelligible> and that's what's represented by the that stream coming off the female moths. What happens is when the LBAM-F ummm.. application is made, the microcapsules that contain the time release of the pheromone <unintelligible> get this is a representation of how they're distributed in the environment and you can see that you can't really find that females <unintelligible> in there because it's masked by the <unintelligible> of these microcapsules released from the pheromone. They behave similar as a female releasing a pheromone. A male will try to follow the pheromone <unintelligible> by looking and following everything that looks like a pheromone <unintelligible >.

Next slide.. So, how effective is it? This is the first attempt of eradication for Light Brown Apple Moth <unintelligible> But many disruption has been successful for over thirty years in control of a number of <unintelligible> insects and a number of <unintelligible> crops umm… in California over fifty percent of the peach <unintelligible> use this technique to uh reduce or eliminate insecticide applications in the crop. <unintelligible> control that's an effective control we're taking one step further because it's a small population and and confusing them to the point of eliminating them from the environment. <unintelligible> that create a million disruption technology, a lot of them are using this same approach with checkmate time release flow of products uhh for insect control..

Next slide .. Now at this point, there's a lot of details about checkmate LBAM-F and what does it mean when we make an application uh out into our environment. So that's where Jim Ryan with the USDA will walk you through some of the technicalities of the program. Jim will you please introduce yourself?

Jim Ryan: Hi, my name is Jim Ryan with the USDA <unintelligible> a local human environmental services division out of Riverdale which is primarily tasked with uh environmental documentation related to uh <unintelligible> related programs. What I'm going to cover in the next slides as John mentioned in his talk is a little more detail about exactly what the LBAM-F formulation is, how much of the material is use to put on the environment and then I want to also talk about the safety profile about the product, uh not only the active ingredient which is the pheromone, but also the inerts? Uhh.. if you look at the use rate for LBAM-F, if you look at the label the section 18 label that's out there that's kind of our guidance of how much material to put out uh.. it's very low use rates, if you look up on the slides, there's just slightly under 3 fluid ounces per acre. Uh now that's sometimes maybe hard to visualize so what I try to do is put them in the context as something I think most of us can relate to and that is a football field. So if you look under that 2 point line seven fluid ounce weight per acre, that's the equivalent of about little between seven and eight table spoons of checkmate LBAM-F applied over an entire football field and this is uh representation of that. This is basically, that seven to eight tablespoons in a container. If you'll notice, it's in two layers and that's actually a good thing from the context of when I'll talk about it a little bit later, is effects the potential risk to product organisms the <unintelligible> material as well as the active ingredient is inside and that's what you see here. The bottom layer is the water, the microcapsules as well as the pheromone is less than the water so it floats on the top so the revolutionary idea of what's going to be part of a football field now this material has—about seventy five to eighty percent of this is water so if you want to just talk about the material that's firmer, the active ingredient and the microcapsules which make up the right part- top of the solution – we're looking at right about a little over one and a half tablespoons distributed over an area of a football field. So extremely rare huge rates compared to several other conventional pesticides that are used out there. Now if you want look at that on a number of microcapsules that have hit the ground, I took some numbers from the previous application uh.. that John mentioned on Monterey-Seaside, excuse me, calculated a number of microcapsules per square foot you talking right around – the average is thirty three so once again very, very loose right in very low exposure and that's real important to point out that when you look at risks at it relates to human health, environmental let's say <unintelligible> it's a function of two things, exposure, which we're talking about here, and then effects, that is the toxicity of the product. So you have to look at both of those and accept that just because it's not ideal to get expose and I'll talk a little bit about the effects a little later.

Uhh.. next slide please.. So,<unintelligible> there is an actual microcapsule and why do we have to use a microcapsule in these applications. Well, the microcapsule is very small as you can tell from this this jar of material, it's eighty to one hundred and fifty micrometers. I've got a picture of it in the next slide I'll show you in a minute that shows you in relation to some things I think you can identify with Basically, the pheromone is contained within a pore as you can see there on the slide, uh within the microcapsule, the outside of the microcapsule is <unintelligible>. Now the reason that has to be used is we want to have a slow pass and diffusion of the pheromone from the microcapsule into the environment. Keep in mind what we're trying to do is we're trying to mimic a natural produced pheromone and put them into the environment over time as John mentioned

because what we're trying to do is confuse the <inaudible> moth because it's using that pheromone to hold itself to the female for reproductive purposes. So, umm..if we're just applying this pheromone without the microcapsule, this stuff would dissipate in just hours. The whole idea with this pheromone when it occurs in nature, is like I said <unintelligible> it's counter productive for her to make the pheromone persistent that is last longer in the environment so that's the reason we have to use the microcapsule so we get that slow diffusion. Another thing to was probably like I said earlier, is insoluble which makes sense. It doesn't make sense for a female moth to produce a pheromone that's going to produce a solution because the pheromone is being detected by the antenna the <unintelligible> moth

Next slide please.. This gives you an idea of actually what the microcapsules look like under a microscope and compare that relative to <unintelligible> from Santa Cruz. Uhh.. of the previous slide showed the range of the microcapsule can vary quite a bit anywhere from eighty to one hundred and fifty micrometers uhh.. you can see you up there we got one of the larger microcapsules identified in Southern Humboldt <unintelligible> such relative is the third the size of a grain of sand.

Next slide please.. Now this stuff is applied from the airplanes uh we can apply it in this concentrated material, okay, this has to be a little bit with water, once again the product does not bring in to solution in water, water is just being used as a carrier to boot it up up the airplane so that it can then be applied over the airway <unintelligible> So typically what happens is the droplet that comes out of the nozzle is a fairly large droplet, probably two and a half to three millimeters in size. That droplet contains multiple microcapsules. If you look at the bottom of that slide you'll see it's kind of hard to detect, but you'll see that eighty five microcapsules it's surrounded by a drop of water, so the idea is that you have the materials suspended in water so that it can applied out of the plane, it comes out a fairly large drop of course when it falls, you are going to have like evaporation and other factors minimizing the size of the droplets to something more similar to a micrometer size.

Next slide please.. and this is just a <unintelligible> of what the microcapsule looks like in the electro-microscope. Once again the outer shell is a <unintelligible> that's biodegradable and interior has a matrix that contains the pheromone and the pheromone passes a little diffuser across the <unintelligible> into the atmosphere so that it can attract or confuse the <unintelligible> moth. I mentioned at the beginning that when I talked about the rate the 2.97 fluid ounces per acre, that's the total material that we're talking about that's been applied in the LBAM-F formulation. In reality when you look at, then you kind of break it down, a large percentage of that, almost three quarters of that material is water. That's part of the capsule. The pheromone itself, the active ingredient that's listed on the label is somewhere between seventeen to eighteen percent of active material and then what's left over which is the microcapsule, it's typically under five percent of the total amount of inert so very small percentage of the material is inerts. Looking at a lot of issues regarding this program and the safety of the inerts in particular there's some information that appeared in the press referencing material as isocyanate but material was evaluate by EPA beneath a motion that was provided uhh to the press was

actually incorrect. Um.. I don't what the circumstances around the <unintelligible> information provided, it was in violation of <unintelligible> as well as state law um so the EPA has come out in the press release and basically the statement has come out that the isocyanate does not appear in the formulation for the OLR-F or LBAM-F. Now there were concerns about emergency exemptions of section 18 registration of pesticides. In that they don't get <inaudible> by the EPA or the de-process is somehow less uh this product the inerts as well as the active ingredient still goes through to the same safety review at EPA. It's an expedited process but the safety data as well as the data regarding inerts is provided to EPA for their review so they can make a registration decision on the section 18 which they did from this case from LBAM-F as well as OLR-F umm.. these inerts that are present in this formulation as well as several other checkmate formulations have been reviewed by multiple federal agencies uh.. the Canadian authorities, European authorities, uh.. the South America world, South Africa, as well as the United States, California DPR as well as the states that are listed up here, Colorado, Washington, New York, Hawaii and Florida have all been provided information regarding inerts and have made independent reviews and completions on the safety of those products. I think it's important to point out to that that these products have been evaluated and based on the results of that <unintelligible> of those once an application has been made that is an application can be made into a field and then people based on the toxics and the lack of toxicity, people can move into that field immediately after application. That's very different from a lot of conventional pesticides, also um, the <unintelligible> which these products there is none. But Basically, with a lot of conventional pesticides you have to wait a certain period of time and that can range anywhere from <unintelligible> to ninety days before you can actual harvest the material. EPA as well as other regulatory terms in other countries have evaluated the inert toxicity profile for this compound as well as the exposure and that aside, that pre harvest or post harvest interval is not required for this <unintelligible> products. Umm.. there been some concerns regarding the aquatic toxicity of this product um with slight focus primarily on the aquatic piece but I would like to point out that all of the toxicity data mammal toxicity data as well as bird toxicity has shown that this product is practically non-toxic and when I say the product, we're talking about the technical length of the <unintelligible> Okay,

Susan Mauriello: Could you say that again, I didn't understand that last sentence?

Jim Ryan: The submission for registration of this product EPA classifies chemicals as either anything from practically non-toxic in caps which means it has to be tested to be over a certain dose and found that there's no toxicity to everything that's highly toxic. Based on how these studies are conducted, all of these studies has toxicity values that were greater than the highest test concentration based on how the EPA requires those test on very, very high concentrations. So practically non-toxic is kind of is the best outcome that you can have with as far as characterizing toxicity because what the found in mammals as well in birds. But as it relates to product concerns as I mention earlier. This product is not soluble. So certainly there's a deduction in exposure, one being exposure to <unintelligible> solution also um the <unintelligible>? Program has been outlined does not allow <unintelligible> bodies of water. The <unintelligible> GPS units to be able to shut of viles? and not allow the product to be misapplied over water, which is also

consistent with the label of the product. As I mentioned before the product uh is insoluble both as a <inaudible> material as well as a technical act of ingredient so basically it's going to sit on the surface of the water that's highly susceptible to relieve degradation as well as oxidation so when the quality can <inaudible> you see degradation of the material um.. to address the concerns the .formulated material.. end of tape side A

Beginning of Side B

UC Davis the <inaudible> pollution lab, um.. I guess it's about a month ago, conducted some toxicity studies with the formulated material we did those rates assuming a direct application to the water which would not occur and then took that rate and multiply it by about third and we saw no effects that's consistent with the other toxicity data that's been submitted for support and registration of this products CDFO is also funding some additional studies with the formulated material looking at toxicity to acquire convertible as well as fulsh the studies should be complete by the end of the week and so far the results have shown that the product is not toxic at rates that would assume direct application at rates much higher than we would put out in the environment.

Beautz: Okay, do you members have any questions before we (unintelligible)

Unidentified speaker: Part of the um.. ah.. process that we go through is when we propose this kind of eradication program is consultation with other regulatory agencies that have some jurisdiction over um.. the .. the environment that we're shooting and in particular I want to look at the <unintelligible>, National Sanctuary of the Monterey Bay as Dr. <unintelligible> just alluded to.. We look to them to do those aquatic studies and came up with no toxicity to <unintelligible> which was range as a <unintelligible> concern on the chance that this <unintelligible> might find his way into the Sanctuary. The data showed very clearly um.. and the risk analysis that this is not going to be a problem in terms of toxicity and then the third-party tasks with impolution lab in Monterey, um, it confirmed those, those risk analysis from the, uh, existing, uh, existing, um USDA environmental assessment. The other entities up there have all looked at the program and all have given it a clean bill of health with regard to impact on non-target species, to the endangered species, and, um, in particular, the, um, uh, the issue of eradicating the pests before additional pesticide applications become required by growers or inadvertently happened through the public and create run-off of unintended pesticide use into the stream and estuaries of, uh, the Bay region and the coastal region down here.

Next slide, please. One question that comes up is product labeling and this label is labeled as a caution, uh, label as been indicated and on that it says " Keep out the reach of children", that is a requirement of any label, uh, for any kind of biocide or pesticide um, that EPA registers. It's the, the caution label is the lowest label that, that EPA issues. Um, the label precautions if you go on our website and look at the LBAM-F Section 18 label which is what we're operating under it says, um, "the hazards that are, that are admissible in terms of precautions are for the mixers and handlers that are handling the concentrated applications, uh, basically eight hours a day during um, um, application

periods, it says specifically from the EPA label, "these precautions are not necessary for persons exposed to the product after it has been diluted" as Dr. Warren has described, um, and applied according to the directions for use which is what we're talking about, the 2.97, uh, ounces per acre over the, uh, affected area. So, so the EPA's registration and all these requirements in terms of the hazar—or these precautions are not necessary. One of the things that, um, um, go to the next slide, please, that comes up a lot is, um, is it on this slide? I don't see it. I'll come to it in just a second, but as Dr. Warren also indicated that the safety requirements for, uh, public health and environmental health have gone through rigorous review of the U.S. EPA and California Department of Pesticide Regulations, as well as several other nations and several other states rigorously and have had found no concerns with it with regard to, uh, public health and the environment. However, one of the things that we put on our notice when we put a notice out to the public is, um, steps that people can take if they wish to avoid unnecessary exposure. As you receive the e-mails as we have received in the e-mail, there's plenty of folks in this community that feel that this is a concern, and if they, and if they are concerned about it, we offer them advice as to what they can do to minimize exposure. Stay indoors during the posted times of treatment. Take your laundry off the line if you're concerned. These are proven steps to take if you're concerned, though they're not necessary because of the nature of the product, but if you feel you want to take those steps, we put 'em out there. Um, programs where we don't use those recommendations, we hear just the opposite request. "Why didn't you provide us with warning?" So, we are providing warning, we do on all operational programs because of its convenience to the constituent that's affected by whatever operation that we might be, might be doing. Can you go back just a second? Um, the applications are made at night because it, it minimizes an inconvenience to the public during the day of those folks who wish to avoid exposure were out busy doing things, or, you know, they wanna be outdoors, and, and to create that inconvenience we've moved these types of operations to night because, because we fly with a GPS system and can track them carefully, um, and I've already mentioned that we include those recommendations for those folks for their convenience if they wanna minimize their exposure. I already kinda mentioned about this in terms of what's next. It's the suppression in 2007, uh, in, in the, uh, Seaside-Monterey area which has already started and what's proposed for the Santa Cruz and Prunedale-Salinas areas in 2007. It will expand throughout the coast, the rest of the coastal region, uh, in 2008, probably parts of 2009. As trapping results start coming in at the end of 2008 and into 2009, if hot spots are still, um, uh, identified by trapping results, then those areas will be treated specifically. I can't say specifically what that would be. If it's a hot spot that's big enough to require aerial treatment, um, then, uh, that's what we'll recommend. If it's small enough to be dealt with by ground application, then that's what we'll recommend. Um, we will continue trapping on into 2009 and 2010 to make sure that they, the result that we're expected of eradication by negative trapping for the Light Brown Apple Moth, and if, if that can be sustained until that time, we will be able to declare eradication. Information is available on many aspects of the program, the label's, um, information about the, tum, the product, question and answers on safety, um, the maps, times, recommendations to minimize exposure all can be found on our CDFA website. When you go to it, the link to the Light Brown Apple Moth is right there, easy to find, the same with the USDA Aphis website. Um, there's an e-mail address you can contact, uh,

CDFA and there's also a, um, a registration process that's available at that website that you can sign up for, that, that, um, uh, during treatment, uh, one of the issues that comes up is, um, are we treating tonight, is the wind too high, or where are you going to start, and, and when we know what that's gonna be, we can post it. If you register, then we will e-mail you directly, and it says here's what's going on. If we get postponed in the middle of the night because the wind comes up or the weather changes, then we will identify we stopped early because of whatever, so you'll get a sense to know. Um. Another question that's kinda come up, and the reason I bring it up now is because of that, that subscription service is the nature of what the application will look like, um, uh, in, in the area. We've, we've contracted with Dynamic Aviation for, uh, three planes to make the application, we <unintelligible> by GPS systems, and if you reflect back to the map that show the Monterey-Seaside area, there's cross-hatch zones, the planes basically will fly up and down those zones with, uh, and they each put, produce a hundred-foot swath at ground level. Th--, and, uh, mapped on the GPS system, so as they make their fly-arounds, they go down a hundred-foot swath, make their turn and come back. The next swath lines up, and, and basically it's like mowing the lawn back and forth until the law is completely mowed, or in this case, the application is made to cover the entire area. If it stops in the middle of the application because the wind comes up, the GPS system marks where it left off, and so we're able to come back the next night, we pick back up where we left off in that kind of a pattern then, you know, doesn't allow for repeated applications over the same, um, same flight path over and over again which has, has been raised as a concern. Um, the planes are coming and going, and they may go past, pass an area because they return to the airport to refuel or to reload for the next pass, and so sometimes that comes up as a concern. And, but the actuality is up and down those fly lines, in, within the time frame of November 4th through November 9th, you're going to be treated one of those nights. Not every night, not six times, one time during that period in whatever treatment zone you might be in, so the question then comes up, going back to that registration process, if you're not sure if you got treated that night because the wind came up, you will see the notice or can e-mail or you can call the, um, um, uh, Department's, uh, uh, hotline that's on our website, too, or you can see up on the slide and ask was I treated? Or, or if were, ss--, or if you, eh, like I said, if it stops early you'll get an e-mail if you've registered, and that's, I think that's it for the presentation.

Connell (?): I'll just finish up, then, by saying we are struggling currently in this country with a problem with invasive species. In this, um, this area, this region here, uh, it wasn't that long ago that many of us were not born. Some of those in the room that dealt with, uh, some the earlier problems of invasives, uh, Medfly of the past, uh, a Gypsy Moth in this region, even a, a, sh--, a Glassy Wing Sharpshooter. If the challenge we have today, and we have 10 or so different eradications going on around the State at this time, I'm not alone, you know, all, many other states are dealing with enormous challenges to their environment or to their food supply from invasive species. I, I mention this only because it, it's something that we've dealt with over a long period of time. This, this, uh, thing we call civilization. We've got challenges every day that, uh, enter into our lives in the form of diseases, pests, insects, uh, something as simple as ants, termites, or, or other kinds of things that come up that are usually controlled by vector control. Where when three agencies that generally, uh, deal with eradications, uh, Fish and Game, uh, deals

with eradications. Health and Human Services deals with eradications and certainly we do, too. We're one of the few departments if not the only agency that really deals with protecting the life systems of the State, uh, and we do this in protecting the food system, the environment, and public health. Uh, I just wanted to then say that the commitment we have is to use new tools in this year and this decade, for example, that are available to us. Our commitment has always been to use the latest best tools that protect, uh, public health, number one, the environment, number two, and then, of course, part of the reason we do these things is to protect the economy as well. Uh, and we, we, we, we, it is true, you know, it's very true, the economy of this region, this is a very important agriculture region not only to feeding this own region, but for the whole state as well. It's a very dynamic region, and as you look at the whole food production cycle for this country, pests that affect food supply, fit, affect the economy, and when people, are, are concerned about this is only about the economy, uh, that, that has to be something that you have to look in, as, in the context of what are you trying to do. We have a food supply that we depend on in the state, we have a food supply that we depend on in this nation. It is important for you to know, a, a challenge for, for the entire world, whether, uh, in the safety of how those products are produced, whether it's the treatment of the way those products are brought to our tables, and, and as we look at this bigger challenge and that's maybe one of the toughest things for this region whether we're protecting the environment or the food supply, or, or something as big as public health, uh, this is not going to be the last time our department or any other department will be here trying to deal with the health of the general region, and, and I just can't help but say that enough times that, uh, if this, the public here throughout the state could help us with, first of all, keeping invasive species out in the first place, um, uh, uh, uh, um, a petition to sign which is in support of Senator Feinstein's bill to help keep invasive species out of the country in the first place, and that's hopefully passed around the room, so you might not agree with this eradication that many of you who are here today, but I hope that you will agree that we are trying hard to keep invasives out in the first place so we don't have be here dealing with the eradication. So I would encourage you to please sign that. It's Senate Bill 887, and you can go on her website and see what that's all about. But that's one of the problems we have is we have a leaky inspection system at ports of entry. Second to that is dealing with identification map identification of invasive species in our areas. We'll try and do a better job of identifying all these different pests we suspect of being let into our state. If we can find them early at an early infestation and their early introduction, then we can do a ground application and then we can do something to get rid of these pests, and, and get, find them early before they become large enough to have to resort to any other application. Maybe that's one thing that we don't understand easily is the magnitude of this infestation has required us to use the best strategy which an aerial application, so we've talked a lot and I know you got a lot of people who want to say things. Uh, we'll continue to try and come up with the answer to the hard questions you've got. Uh, it's part of the public process, we believe in that public process, uh, we, uh, continue looking for and then those kinda answers using these best technologies to deal with pests that affect this region today and other regions of the state as well. Uh, uh, Madame Chair, uh, again, I wanna thank you for this opportunity to be here. It's not an easy situation, a lot of people are not in agreement with any kind of eradication my guess would be that it's something that, uh, uh, hard learned lessons have told us. You can let

these pests go and suffer the consequences much later, and we certainly have enough examples around this country to deal with that and around the world.

Beautz: Thank you very much. It was a very informative presentation. Um, I think it would be appropriate to let the public speak now unless any Board member would like to ask a question before that. Um, if people could get in <unintelligible> up here, if you could get in line, that makes it go quicker. There will be two minutes' speaking, um, time, um, you can address the Board with your, your comments and questions. We will keep track of questions, uh, and I can get like kind of dialogues here, and every so often we'll take a break and we'll see if some of those questions could be answered today, maybe some will have to get information, um, in the future for some of the more complicated, um, questions, so if the first speaker would like to begin. If you could give us your name, that would be good.

Louis Bensignor: Good evening, my name is Louis Bensignor. My partner and I are homeowners in Soquel. Um, I'd like to tell you that I strongly support what Food and Ag is doing. Um, I have seen problems we've had around our home, and it's already, eh, manifesting in problems with our, just, uh, and we're not farmers, we're just homeowners. But we do find it alarming at what we're seeing going on. Um, I'd like to talk, ask, ask you a couple of quick questions. How many jobs are involved in agriculture in Santa Cruz County? How many dollars, how many people would, uh, be affected by, um, non-application of this. If it goes into our general food supply and the application does not work, um, if we have to, or if something goes wrong, and we, uh, do not apply this, what happens to our food supply? How many jobs would be affected? Um, I'd like to know the cost effectiveness of alternate solutions. The effectiveness in the short term and the long term, and what they, what that means to the County, and, um, given what Ag in, um, Santa Cruz and Monterey have gone through in the last year with spinach and lettuce, I am very concerned we are not looking at the long term effectiveness of, um, if we, if we ban this we would not be doing, um, we will not be, uh, effective in helping our ag in all the jobs that are, can, and in the economy and the, um, uh, uh, number of people that would be affected by not doing anything. I strongly support it. I support a strong multifaceted programs aerial spraying, twist ties, whatever is necessary, I think this is very important for Santa Cruz. Thank you.

Beautz: Thank you very much.

Beverly Phillip: Hi, my name's Beverly Phillip and, um, I wanna point out a coupla things. One is that at Simpkins Swim Center we were told that this pesticide has no health effects. At Santa Cruz City Council, we were told that it has no health effects which was <unintelligible> slide show. Tonight we're told that it's practically non-toxic. Now all of these things can't be true. At, uh, we were told first, uh, at the City Council meeting we were told one aerial application over Santa Cruz County. Tonight we were told, I don't know, a lot of, you know, one aerial application and then maybe next spring and then if it's gone and then it might be till 2010. In the LBAM eradication protocol printed by the CDFA, it states, and this is a quote, "Treatments will occur every 30 days until two life cycles after the last LBAM detected." So, all those can't be true either.

Um, I feel like there's a lot of deception going on. I strongly oppose this spraying. I think that it is not okay to spray people with pesticide. I'd like us to do a little visualization here. What if each and every of our elected officials decided that people's health is so important that no amount of money, that they, they stand to lose, is going, is worth spraying chemical son our population. That might be awesome.

Eileen Flynn: Hello, my name is Eileen Flynn, and, um, I guess I first wanna say that I have personally not <unintelligible> that nothing should be done about the Apple Moth. Um, there are many other methods that, um, can be used besides spraying. I think that pheromones are an, an intelligent <unintelligible> method, and I think that the CDFA should trust us to be intelligent and reasonable and <unintelligible> so we can see what in there. Um, I feel that <unintelligible> all of our needs <unintelligible>. I just wanna say some of this <unintelligible> and, um, last week I went to Monterey and I was very nervous about the spraying and, um, I wasn't sure if it was gonna happen or not and where exactly it might happen, and, um, <unintelligible>, but I think that more information needs to be released, um, so that we are feeling good about this. Thank you.

Angela Flynn: My name is Angela Flynn. DDT, Chlordane, and <unintelligible>. What do these pesticides have in common? The government told us these highly toxic pesticides were safe right up to the day the EPA banned them. While OLR-F active ingredients are known, Suterra refuses to publish the inert ingredient. According to the EPA, many inert ingredients in current use have known adverse and environmental affects. Before we are sprayed, we need to know these inert ingredients. Suterra's safely data on the inhalation of OLR-F says that if exposure occurs, "Remove victim to fresh air. Get medical attention." The initial treatment area consists of three blocks totaling approximately 60,000 acres. Complete eradication within Santa Cruz and northern Monterey areas are expected to take several years. Where are we going to find this fresh air. Several years is a long time to hold ones breath. The label warns of potential harm to humans including eye and skin irritation. How will our pets, livestocks, and wild life, locals, and homeless people be able to avoid exposure. People are told to stay indoors on the nights of treatment and avoid skin contact. How will this impact our restaurants and entertainment venues? Several applications will be needed per year, and these applications cannot take place in the rain or if wind speed is over 10 miles per hour. Therefore, scheduling will constantly be disrupted. It is unreasonable to expect us to keep up on changes to the spraying schedule. Unintended and unwanted exposure is bound to occur. The LBA Moth is indistinguishable from other leaf-eater moths without DNA analysis. <unintelligible> that this moth is a voracious pest and will destroy our <unintelligible> crops and gardens and has no natural predators. The moth is found in Australia, New Zealand, Ireland, Tanzania, the UK, and Hawaii. At last check, they still had green plants. In the light of increasing <unintelligible>, such an incursion is inevitable and it would be better to live with this moth rather than take the extreme measures proposed to us.

Jack Schultz: My name is Jack Schultz. I'm a local civil engineer <unintelligible>. I'm a representative of uh, American <unintelligible> Association. Um, <unintelligible>, but I made me come, so <unintelligible> problems increased. Um, I have

<unintelligible> catchment system <unintelligible>. I'm not sure that I'm completely sure of the concern, so I'm not quite as hostile as one might be. Uh, I just do wanna mention to you that <unintelligible> catchment is equivalent to being open as a body of water. Now there are not very many of them here now. I don't know how many people catch wa, water <unintelligible>. I <unintelligible> we have a very good filtration system <unintelligible>, but not everyone has had that. Uh, I just wanna bring back to your attention maybe not in this <unintelligible>, but in others is, is a serious matter. A couple of questions. What about inhalation? <unintelligible> mention a hundred micron <unintelligible> problem I'd like to, I'm sure you <unintelligible> , I haven't. And I'd like to know about the possibility of reinfestation. Suppose we go through all of this, it may be a good idea. Two years from now, will they come back? I know you've got problems with <unintelligible> invasive species coming in, but I suspect our problem will continue to grow. So I'd like to know about the inhalation <unintelligible> catchments <unintelligible> on drinking water.

Elaine Cherkowsky: My names's Elaine Cherkowsky, and there's an article in this week's Santa Cruz Metro and I'm quoting: "The Department of Food and Agriculture Secretary Kawamura 'repeatedly cited that protecting the ability of County growers to maintain their international and interstate trade connections is a reason for adopting the goal of eradication. So the Light Brown Apple Moth didn't come here <unintelligible>, it was brought here just like the Mediterranean Fruit Fly and the Glassy-Winged Sharpshooter and the fungus that's killing off the live oaks that was spread by the nursery industry importing and the sooner we eliminate importing agricultural products from distant ecosystems will result in importing exotic pests. This produces a never-ending cycle of spraying that will be required for as long as interstate commerce continues. I mean, it's like using <unintelligible> while continuing to eat chocolate and greasy hamburgers while expecting your pimples to go away. The moth is not the culprit. It's a symptom of international commerce. Every nation must start raising and consuming their own local fruits and vegetables. The phrase "buy fresh and buy local" is every more timely. Nations can voluntarily stop importing distant produce. However, this idiotic practice <unintelligible> while the price of oil goes too high to make fuel cost prohibitive. And I see the contempt with which the people are treated by industry. The captains of industry here get a whole hour to talk and all these peasants hat in had get 120 seconds of peace. And the thing that is <unintelligible> spray cyanide to kill the moths, you'd probably be hearing the same static. Thank you.

Katherine Hindon (?): Hi, Katherine Hindon, Santa Cruz. Um, would everybody behind me who's here against the spraying please raise their hands.

(Audience response)

Katherine Hindon (?): You see, just on a rainy night, <unintelligible> a rain night, um, this sounds like just the beginning. What they're proposing to do, what they're foisting on us is just the beginning....

(Someone else speaks up)

Beautz: Speak one at a time, please. Everybody'll get a chance to…

Katherine Hindon (?): <unintelligible> This is not an emergency. They are the emergency on us! This is a massive <unintelligible> creation propaganda campaign and we're paying for it with out tax money. They are the real pests, and they are dangerous pests. We must not be quiet and sit in the face of this monstrous assault on our lives and life. It is not appropriate to be quiet. My button says, "Speak your mind <unintelligible> and silence is subsersive complicity." I call on us all to raise our voices in a cacophony of democracy as loudly as we can for as long as it takes to stop this. We are stark raving sane citizens confronted with psychopathic insanity. Additionally, I call on you, our elected representatives to fight this by any and all local means on behalf of us, yourselves, and all the, all the <unintelligible>. Please, please join the City, join Monterey, whatever it takes, please help us stop this. Thank you.

(Audience applause and cheers)

Gerald Pollack: Hello, my name is Dr. Gerald Pollock. I'm a Ph.D. toxicologist and risk assessor which means that I evaluate the potential of a chemical to cause harm to people. I am here on behalf of the California Association of Professional scientists or CAPS, of which I am a long-time member. CAPS represents nearly 3,000 scientists who work for the State of California in 36 departments. I am here a volunteer on my own time. I've been a professional toxicologist for over 30 years and have had positions in the university, private sector, and the State of California. I am certified by the American Board of Toxicology. Several years ago, I was involved in a study of contamination of fish in Monterey Bay Area. My comments today are on behalf of CAPS and <unintelligible> my current position with the State, <unintelligible> CDFA, and the UA. In evaluating the potential for adverse effects through the exposure to a chemical, toxicologists look at merely two factors, the inherent toxicity of the chemical and secondly, the dose or amount of exposure to the chemical. I have examined the proposed spraying with the insect pheromone, and it is my opinion that there is little likelihood of any adverse effects to people from the spraying. I base this opinion currently on the low inherent toxicity of the pheromone. The pesticide LBAM is in a class of insect pheromones which are chemicals <unintelligible> use to locate each other for the purpose of mating. These chemicals are usually active at very low concentrations, and LBAM is active in low quantities. This chemical is of low toxicity. These characteristics of a chemical <unintelligible> very low rates. These very low application <unintelligible> minimal exposure to the public. These <inaudible> toxicity of the LBAM compared to the low <inaudible> exposure I believe in the likelihood of these effects to the LBAM family are below the level of health concern. I've also looked at the use of carrier from the <unintelligible? family and I believe it is also of low health concern. Based on this evaluation CAPS organization strongly supports the California Department of Food and Argiculture propose bring for Light Brown Apple Moth. Thank you.

<Inaudible speaking>

Tom King: My name is Tom King, I am a County Employee and I am here on my own right now. Um Mr. Agriculture Secretary um.... Your arrogance and confidence in him in this issue along with your absolute refusal to vouch the ingredients inert and actively this <unintelligible> must treat <unintelligible> with a trustless attitude is absolutely unacceptable. What I want to make out of this is an infirm decision is to know all the facts that includes knowledgeable I agree is above all else. My right to know <inaudible> for instance a private company's right to a partner trait secrets. If we were not drinking water, it's a controversial enough issue at least people know what they're dealing with. Um.. all present employees are getting <unintelligible> yeah, right...I would propose to the call of satisfaction for all the people we've turn for their own safety because I encourage everyone to just file claims for causing damages as a results if the contents are of <unintelligible> declared. Hopefully there's a <unintelligible> take action in this issue. Umm.. my father taught me to question everything I hear in considerable service, it amazes me.. we've lost every credibility in the <unintelligble> in critical information.. Um...we'd like to know if we are being <unintelligible> and you have an obligation to tell us and no string should be allowed until that is done. Um.. Why are different chemicals being used in different areas unless we are just a human test market? Yes, you need to be accountable for your actions and you need to be fired immediately.

Andy Shapiro: Hi, my name is Andy Shapiro and I'm a resident of Soquel, I also happen to be a teacher in Soquel, and I am particularly concerned about the effect that this will have on children. I <unintelligible> and did also say do not inhale and did say keep out of children which you pointed out earlier in your presentation. That is not <unintelligible> as you make it to sound if you didn't need the <unintelligible> it probably wouldn't be there. So, there's some problem there. The other thing I would like to ask the four of you representing you as in State Governments is if this is harmless as you all claim it is, I would like to invite the four of you and your children to be in the most exposed place with the homeless people and others who work in the evenings who are going to directly exposed, who can't be in their homes at that time and to deal with that level of exposure so I invite you in that first week in November, please. Um.. As far as secrecy goes, it seems crazy to me that you would allow something to be put on our citizens knowing what those ingredients are. <unintelligible> Um.. and this is a manufactured emergency, it has not been much damage at all yet described. The first person you spoke to he said he had a lot of moths in his yard. I believe those oak moths. Those are not, those are not the moths that explained for so that that <unintelligible> ideas kind of damage that I am kind of concerned about. Um.. normally something I think many people are in favor of to is <unintelligible> it's a relative benign treating this problem. I knows it's more work, it's more money, um... and I would hope that you would put human health into corporate profit which is something our government hasn't be doing lately. The last thing I want to say is this is an analogist to me of something that people with the Bush administration understand with. This is a <unintelligible> They're living endangered species and it happens to be on a wealthy land property and they can't live on them or do something with that land, they call it a <unintelligible> cause they can't use that land to the fullest capacity. This is taking our land those of us who don't

want to be sprayed and making it less use of it before so there's a <unintelligible> for which we will all <unintelligible> of compensation. Thank you.

Dan Miller: Hi, Dan Miller, uh.. I don't know if any of you folks have ever been uh.. in <inaudible> department store and been involuntary sprayed with perfume.. It's more than a little bit aggravating and to me the heart of the issue here is manners. And what you're doing is down right rude and I think you ought to go take a copy of <unintelligible> As to quote the last guy, I have a lovely cot and a spare room and my bedroom and you guys are welcome to come and stay with us while the spraying is going on, we're going to be barbequing outside and just drink it in like we're going to. Thank you.

Applause.

Unidentified speaker: Well, may I point out that rights under traits secret law are not absolute. It must have bend to larger concerns like public health, the government can take a persons house if they need to build a road, the government can also require the disclosure of an ingredients list and a formulation for an insecticide so that the public can understand what's in it and can have it analyzed by independent experts. Fortunately, fortunately, the <inaudible> leaked some of the ingredients list. One of the ingredients that they leaked was tricaper methelamonium chloride. I happened to look up the material safety data sheet for this item which says that it is Quote "extremely hazardous in the case of skin contact of ingestion and of <unintelligible>. Might I say of course that the product that's being applied here has less of this, this chemical in it than a pure formulation would have, but we don't know how much less and we don't know what else may be in this product because they're saying it's a trait secret. Um.. also <unintelligible> formulation of how the product is um.. physically packaged is important like in the case of diesel exhaust small particles are much more hazardous that the large particles. Based of the micrograph that there's a huge variety of particles sizes some seeming even smaller than ten microns edging into an area of fine particles that are sometimes quite hazardous. Inclusion we need full public disclosure of the ingredients on the formulation adequate independent independence studies of health effects on humans plants and other organisms and if there an open decision making process. I urge the Supervisors to join the lawsuit to stop the spraying until we have those things.

Applause.

Sam Garber: My name is Sam Garber and I am not going to voice my opinion other than I'd like to second the last man that just spoke but I didn't get my questions answered and it was because everything isn't broken down. Umm.. <unintelligible> as far as I know is used in all kinds of products they use in oil, they make oil multi <unintelligible> they incapsulate things um.. but um.. these things aren't broken down but uh.. how come, how come everything hasn't been tested and what category would it be in earlier you mentioned <unintelligible> are in use of the oak moths and is used in mosquitoes are they? And I believe the company safer mark is as a safer product. Is this product ever been used in uh.. in agriculture? What category would it be in? Would it be considered a safer product? Has someone use it in organic farming? If they didn't put it directly on the

product. It was being fold and uh..those there were things that weren't answered so I don't feel that things have been broken down enough that's all.

Applause.

Brian Anthony: My name is Brian Anthony, uh.. I am a local doctor of chiropractic. I have patients who've come up from Monterey County reporting there have been adverse respiratory effects from the sprayings that's been going on down there.. Uhh.. in my reading on all disruption I'm warned about the ill effects to amphibian species <unintelligible> comes to mind. Things which apparently are safe in the short term build up in the environment and in the long term half hazardous health effects on human not to mention amphibian reproductive cycles. This is a hormone confuser we've been told about. I'm concerned that it may have other effects and I hope that'll be addressed. Thank you for your time.

Beautz: Thank you.

Applause.

Dan Harder: I'm Dan Harder, concerned father and speaking on my behalf tonight. This is the third time I've come <unintelligible> . This is the third time I've presented my ideas about this. I've been trained as a scientist and I've followed this since um.. discovery of this insect and there really is very little science behind it. Uh.. the protocol their proposing of using a pheromone a mating disrupting pheromone to eliminate insect has never been proven effective anywhere and now this is the third time we've been here and I've been waiting for the results to conferred and I know they've used they gypsy moth, I know they've used it in Australia, but in Australia and New Zealand these applications are limited to agricultural systems. They're not sprayed over native areas, they're not sprayed over urban areas they're limiting it into ag. Pheromones are a great tool for ag. They're great, keep them in ag. Don't , don't submit people to this possible toxin. Ten years, ten years this is long enough to see environmental toxin effect. Look at asbestos . I also want to talk a little about the marine sanctuary implication here. The marine sanctuary after they saw the data they implied <unintelligible > sign to go ahead and spray. Now that's not true the marine sanctuary is insisted on that the spraying respect its buffers and marine areas and river <unintelligible> are prime habitat for LBAM infestation so they will never be <unintelligible > elimination of this insect using the protocol that they described. Not any protocol using the pheromone has ever been proven and why is this experiment happening here? On people? I mean people should not be in this equation. I also, I also would like to point out that I've received a copy of a letter from John Laird. I know the Supervisors received it today. There are questions in here that have been generated over weeks worth of discussion and were very pertinent questions to have answered before anything could happen again, because, because uh. I have very few answers and a lot of it has to do with the secrecy and the miscommunication and the lack of communication. Thank you very much

Applause.

D. Kushner: My name is D. Kushner. I am not a scientist but I am a pragmatist and after listening to the testimonies tonight, it just seems to me that this rush to spray is fear based and not fact based. According to UC Davis entomologist James Kay Quote "This moth is probably here a very long time. Part of it's discovery is probably far more wide spread than currently deliberated. My concern is that the community is going to be subjected to it supposed non-practical non-toxic repeated air assault is I'd like to achieve <unintelligible > goals. According to Kay, while State and Federal agriculture officials often talk about eradicating the population, in reality each requires a ratification of

[Maria V. – Tape Two, Side A]

Member of the Public: I do care about California Agriculture. Another UC Davis anthropologist Frank Salem says "immediate concern is not with the potential damage to California plants, but potential economic losses due to quarantines and cost of complying with regulations. He believes, and this is important to me, that with help from agriculture researchers, California growers "would learn to manage this new pest much as they successfully managed **hyperendemic lueaphotos** at present". I do care about California growers and I care about the health and welfare of all of us. I don't care about the financial interest of Suterra. In the interest of common sense, I urge the Board of Supervisors to do everything in its power to stop the spraying that may well be futile anyway. I want the U.S. and California Departments of Agriculture to pursue more practical and realistic measures of pest management that respects the health of both agribusiness and our local population. Thank you.

Sara K. Jones: Hello, my name is Sara K. Jones I am also trained as a scientist, but most importantly, I am here as a mother today. I urge you to do whatever you can to stop this spraying. Spraying these pesticides has been done in other countries over agriculture land and it has never been done over cities of people. You are spraying babies and elders without telling us everything you are spraying us with. This is the same as tying a child down and shoving medication down their throat without telling the mother what medication that was. Insoluble pesticides can't be washed away so they will be in sand boxes, in play yards and children will be eating this. My child eats sand every day, this is a slow release chemical, that means that for 30 days every time it is sprayed this will be in my child's system and every toddler's system for 30 days, and if they are spraying every 30 days, then it will be there continuously for months every year. Has there ever been studies on this and how these small particles will affect our children's lungs, the lungs of our elders, how they will affect our children's systems as they are slowly released into their systems over the 30-day release cycle? You admit that no long-term

studies have been done. We need studies, so if this is not an emergency, science can be very helpful in this process. We need studies on long-term efficacy before we spray populations of people. ___ DDT and others ___ safe really long-term studies on all of the ingredients. We are focusing on the pheromone. The discussion is being lead by Suterra. There are other ingredients. We need to know what they are.

Chris McCann: Hi, my name is Chris McCann. I'm from Live Oak. First, I guess my questions would rhetorical, but I was wondering if they gave you the Australian Study,

Beautz: Some information through the internet.

Chris McCann: I do want to say that you need to understand that spraying is never going to be a good idea no matter what you are spraying, and you have to find way a way to stop this and find a different way. I think that you should have been better prepared to come up with a non-spray solution. A larger supply of twist ties should have been prepared. The labor issue with the bags could be solved by mailing these twist ties to the citizens here and they could put them on their own property. You don't have to hire that many people, we can do it and you had said before, I know there was one statement about a 200-hundred-meter radius or something like that and then somebody else said 30 acres. I know 200 hundred meters and 30 acres are not the same thing, but I'm supposing that only 20% of the property owners that got these ties if only 20% of the property owners put them on their trees that that would be enough. The other thing was regarding other areas. It would seem that if you took the time to develop something safe and drop something like some pheromone pills with some kind of <unintelligible> mechanism on them and you could drop these from planes and they would catch on the trees and they would sit on the trees and a pill thing would be a lot more durable, would last a lot longer, require few applications and it would cost less money. Because ultimately, you know, we are the ones who are paying for this. Anyway, that is all I have to say.

Richard Andrew: I'm Richard Andrew from Aptos, speaking for my wife and myself, I think what we have to face or agriculture has to face is that aerial spraying is not working and its not going to work even though somehow it gets concluded that they can go on with it, because the wind conditions, the rain conditions, winter and so on, means it is not going on. So they should get practical and get back to the drawing board tomorrow and think of all the twist ties they could have sent out, in fact mounted, in the time they have been delaying from this whole thing. So, first, I would ask that the Board join the lawsuit to stop the aerial spraying and then direct them to go back and get a plan where we citizens can go out. Specially, in residential neighborhoods, now maybe some agricultural people want spraying. I don't think its going to happen, but I think these people need to go back and start all over with a plan and get something that will work. I do not think that you, Secretary of Agriculture Kawamura, that you have any more right to come and spray my neighborhood than we have to come and spray your neighborhood with something. <unintelligible> your department and USDA <unintelligible> are now threatening to do that sort of thing they are trying to scare you like with all the facts or the statements of facts that we have been given tonight. I'm amazed that in all the time that this has been going on we've received no maps of the areas where the

<unintelligible> have been found or what will be sprayed in our areas. We need to know that, to even think about it, we still don't want the spraying we are steadfast against it, um, in the early 80s. Ok, done with it.

Bonnie Keyed: Hi my name is Bonnie Keyed, I'm a mom of two in Soquel, and I would like to thank the Supervisors for engaging in a democratic process with us here tonight. I want to keep my comments short and try not to repeat what anyone else has said. I know that you guys want to hear new and pertinent and new information. I think that many of the people who have been at the meetings with me will agree that this presentation has changed over the last two weeks, and I wish that the County Board of Supervisors could have seen the first presentation, I think it was more alarming. Maybe it was more factual, I do have a concern about that, two points that I would like to make about the presentations that I think are still lingering is that in their ingredients they are not required to be tested the same way that an active ingredient is required to be tested. They can say that the LBAM checkmate has been tested but we know that the pheromones have not been tested to assume level of disclosure for the symptoms. I guess I will just wrap up by saying that I'm concerned about the unintended consequences of the spraying, I'm concerned about the parents who are going to take their kids out of school, the schools that are going to lose money that they cannot afford to lose. I'm concerned about the exponential increase in water use, in their website it recommends that we wash down our lawns and our play equipment. We are all going to be doing that. Every single citizen in this County is going to be doing that every single day of this spring. I'm concerned about the businesses that will lose money after 8:00 p.m., in closure. I would just like to ask the Supervisors to join in the lawsuit with the City Council and to continue to waive that banner for us. I would like to tell the State that we agree with you that pheromone usage is one of the absolutely best ways to counter an invasive species, to use twist ties to hold periods on plants that have been infected, and use organic pesticides on plants that are infected, I would also like to tell you that you are right, this is not the last invasive species that we will deal with. So let's set precedence, let's do it wisely, safely, and effectively.

Unidentified Citizen: Good evening folks, thanks for having us, and thanks for listening to us. You know, a lot about what we've heard about this evening is the projected damage and cost of the damage and then the strategy that they have in place. There is no talk about the alternatives, it's not an all or nothing situation. We have options and I really want those to be explored. I have attended all of these meetings, and I really have a lot of questions, and I think everybody else does, and I don't think we are convinced, and I don't know if any of you are convinced, and I really strongly implore you to join the lawsuit to halt this process until further notice until we can research and find better strategies to deal with this. It is not an all or nothing situation, and this is how it is being treated this evening. There are options and lastly, I feel that Monterey has not really been brought up this evening and what has happened down there, and also, I wanted to say that, um, that these are the latest tools and as everybody has mentioned this evening, we have not had the benefit of knowing the long-term effects of this chemical that will be sprayed on us. I do not want to be sprayed. I do not feel comfortable about this situation, and I really implore you to stop this from happening until we can all feel more confident

about what is going on. It is not an all or nothing situation, there are sticky traps, twist ties, sterile release can be done, and I really implore those options to be taken into consideration until further notice. The spraying should be stopped I do not want to be sprayed. Please represent us. That is why you are there. We are grateful for it. Please represent us. We do not want to be sprayed, there are alternates, the folks of <unintelligible> they've gone of head with it, but please represent us. Don't let them spray us.

John Leopold: Good evening, my name is John Leopold. I live in Live Oak. My daughters go to school in Soquel, um, I serve on the Board of Cabrillo College, and I work up at the University and I think that if this was a science fair presentation it would not get a passing grade. There is lots of data about the economic damage that is possible from the moth, there was some information about the affects of <unintelligible>. There was no data about the long-term affects on humans. I think that as a taxpayer, I was a little insulted that there was a two-page advertisement in the paper that talked more about public relations, than it did about any real serious data, and if there is data that could lead us to some conclusion about the safety of this, I think it is incumbent upon the Secretary and your staff to provide that on the website to use that same amount of money to publish on the paper and to deal with people's concerns, which have come up consistently. Um, I would ask the Supervisors to do whatever you can to look for alternatives to this fairly invasive spraying. Our County has been a leader, first and foremost in looking into what goes into our food and leading the organic movement, recycling and composting. When Dick Cheney told us that conservation was a virtue during the energy crisis, we showed here in Santa Cruz and throughout the State that people can conserve energy and do a better job about that, and we need to put that same kind of effort into figuring out ways that are less invasive and several of them we talked about tonight. I won't repeat them all, but the twist ties and the other traps should be thoroughly investigated before we spray an entire area and risk the health of ourselves and our children, and I urge you to do whatever you can as the Board of Supervisors to respect the role of everyone here this evening. Thanks.

Dave Miller: Hi, my name is Dave Miller, and I just want to comment on the fact that we keep hearing that this is an eradication program, and I think that a lot of us here agree that eradication program is maybe what it is called for, but maybe from a different method. The word eradication to my understanding means to completely get rid of, to absolutely abolish, and we are told that we can expect to do this in I guess a maximum of two years. We are told 2010 I suppose and we are also told that this has been occurring in Australia, the spray operations in rural areas in Australia for 10 years and obviously has not been successful because we are getting their moths here, so if it is not successful there in 10 years, how can it be successful here in two years, and I find it odd that the EPA has taken almost three weeks to come out and say that the ingredient in question that the Judge cited as a reason for his temporary restraining order, um, I find it odd that it took them that long to come out and say that is actually not an ingredient when I know for a fact that the cease and desist orders that Suterra has sent out to certain individuals and organizations one of the cease and desist orders had to do precisely with that one ingredient and one of the others, so I find it odd that they are sending out cease and desist

orders for publishing that one ingredient because of trade secret violations when they turn around and now say that it is actually not an ingredient. So at the October 3rd meeting several citizens had asked the state officials and Mr. Kawamura also if they had been sprayed and Mr. Kawamura and two other state officials had said they were. I guess my rhetorical question is where do you live, you either live in the one town in New Zealand who has been sprayed or you live in Monterey and had a big commute, so no other towns that I know of have been sprayed yet all three of you say you had been sprayed, so I find that kind of odd.

Barton Bruno: Hello my name is Barton Bruno and I am from the Monterey area I drove up here to tell you what I experienced during the spraying. I left Monterey during the spraying because I'm sensitive to pesticides and I went up to Big Sur and up about 1,400 feet and camped out. I came back in to Carmel Route 1 to Seaside for my work and I could not breathe, my heart was pounding when I would breathe, my face turned red and it was almost like a burning sensation. When I was in the military I had two gas experiences, and this burned almost like tear gas experience and there was also burning on my tongue. The next two days my men came with blood-shot eyes, their kids had problems breathing and they went to Seaside Grammar School, there was three in one family and two in the other and they said there was a lot of kids going to the Seaside Clinic to the nurses and there was other people that I talked to that had similar problems with breathing, so if you are asthmatic or you might have an immune deficiency disease or you might be susceptible to this kind of thing, to me it is very dangerous and you should be aware of this. Thank you.

Laura <unintelligible>: My name is Laura <unintelligible> and I appreciate this opportunity to talk about this issue. I would like to say first of all that I am deeply offended at the Federal positions that if our State cannot handle these issues they are going to step in and take over. I do not appreciate this <unintelligible> and we are supposed to rest assured from the EPA that this is going to be safe when we can easily remember Christina Todd Whitman who assured us that the dust after 911 was safe, now look at our heroes. Is this the reliability that we can expect from the people that are supposed to be representing us, the EPA? I have no reason to believe much of what they are saying at this point. I would like to address an issue and I also have some pamphlets for you, if you would be so kind, if I may present them. Um, I would like to address the issues of crop loss because the Australian Government actually does present the issue of crop loss and it says "From Your Government" which is actually in those packets and it says that chemical interventions are often not needed and it lists half-a-dozen things here that are natural enemies to LBAM. So, I'm not completely convinced that **neuron** spray biochemical pesticide application is necessary because Australia does not think so. I would also like to say that another Australian government agency that also says natural enemies of the egg and larva can actually adequately control the pest so here we are seeing that they are citing Australia when they are actually not actively portraying what the government themselves are saying. I would also like to address that issue that has recently come to my attention and I would also encourage you to and I have provided you with these documents that from my understanding as it currently stands is that <unintelligible> April 2007 they have amended their California Food & Agriculture

By-Laws so that they can brush through this aerial spraying interception 359120 so I believe that this is also another red flag that we have rushed into this. Thank you.

Tom Davis: My name is Tom Davis. My wife Suzanne and I own a house in Live Oak and I would just like to say right off that you have no right to spray us and it is a total violation of the principle and rights. I mean, it is a shocking thing to think that you can come and tell us that we have no input or options, I am not impressed with the presentation that I heard tonight there was multiple glaring contradictions in the <unintelligible> from EPA's speech saying that this won't go in the water because it floats and it's not soluble but then of course it's a <unintelligible> that breaks down in the sun. We live in a watershed where everything will end up in the Monterey Bay that is sprayed anywhere in this County, it is going to go into the Bay and into the water and be all over everything that we touch and play on and affect the environment in a huge way. I couple of examples I mean, I smell a rat this is money and big trade over the environment and human beings its an old story. Who knows MTDE, the gasoline additive that was supposed to make our air cleaner they knew in 30 days from when that went on the market that it was a big mistake, we ate that for 10 years before it was taken off the market. There is now over 200 hundred toxic waste sites in this County alone due to MTDE. If you read their stickers on the blind gasoline pump it said that you are buying a product and it was not the gasoline it was the MPDE that is known to cause cancer and other reproductive harm. You know, you could say you are going to spray us and you are not going to tell us everything that is in this its just outrageous, so needless to say, I would urge you to please take strong stand against this and thank you for representing us in this matter.

Dave Leman: Dan Leman, concerned father, Seabright area, raised by farmers my whole life trained as a CC Rep Farms for 25 years, I have been buying organic produce for the same amount of time this brown moth has been here it has been in Hawaii for a hundred years this is hysteria basically, you can take pheromone traps the moth flies 20 feet at best put it around the infested areas and trap if we have to realize that the days of listening to the FDA & the EPA telling us what is safe are over, they have approved drugs that kill people. The EPA does not test their ingredients at all there are 76% of this thing as a nerd ingredients, this is not a natural pheromone by the way, I support anything that comes from the mother that is the earth but when it is in a test tube and created it is not natural. Stop, look, the EPA and the FDA are monolithic bureaucracies and they are not in anyway protecting us, so it is up to you all and us, the days are over, how many products are approved and in a few years later they are toxic and killing people. Lets stop the hysteria and the mad fly release of sterile flies running on how many, 200,000 or 2,000,000 recently I heard in the first meeting there was not a sterile brown moth fly up and running yet, well stop it get it up and running.

Unidentified Citizen: Unidentified Female - Thank you for hearing us, not to go over what other people have said, there are some more things that we need to know. How long are the biodegradable products, how long is the length of their life and what are their breakdowns. I sat down on the Intergraded Task Board Management for the City for 5-6 years and I know that partial breakdowns can sometimes be as bad or worse in the ways

that they combine with human beings and animal life. So lets nail that since we do not even know what it is even if we were to find out what all the ingredients were at this point <unintelligible> was set up to make combinations of chemicals become secret so that they would not have to test them and then they could <unintelligible>. The EPA has approved 1000s of products that many, many, people are sensitive and have to stay away from 1000s. Recently, I geneticist on KTV's Quest said that they have shown now that 30% of the Anglo European population has now jeaned to clear environmental toxins, these chemicals are cumulative and have long term affects and synergistic within our bodies one to another. I fear for my neighbor. My 80 year-old neighbor, she is very active in the community, but her lungs are giving out, so she can't take applications like this. This is the wrong approach. We finally got the golf course to use compost tea it boosted the immune systems of the grass so that it could keep alpha leafs better than even the category two pesticides, so lets follow the direction of green chemistry in working this out, this is better we now use them a lot, but no aerial spraying and what about solar insecurity, you can't tell me that they are going to store and manufacture and transport and spray all that stuff and it be safe for us all, we just cant know that anymore can we? Thank you.

Terry <unintelligible>**:** I'm Terry <unintelligible> Santa Cruz, and I just want to speak out against the spraying I really think its wrong for the USDA to try to put this on Santa Cruz County or any other place in California, reading their own little document here it says here that the reason twist ties were considered and rejected was primarily because of insufficient supply of twist ties available for use. It would take a minimum of several months for the manufactures to produce the necessary supply of twist ties, here again they are trying to use this as some sort of an emergency that we have got to get to right away, yet they are talking about spraying through 2010, well I say you know we've got some early rains that's all the good probably and definitely we have some time to get those twist ties down here by next spring and start to control this in a more conventional way with twist tying on the crops like they do in all the other crops that they use pheromones rather than trying to aerial spray it, and the other thing its just so ridiculous for them to say well they aren't going to spray in any water bodies, I mean any body that lives in the Santa Cruz area knows about all of the wetlands, the streams, the ponds, everything, I mean. Not to mention the fact that if we are all going to hose down our driveways and our grass the next day, well it is all going to go down the storm drains and end up in the Monterey Bay anyway, so its ridiculous, this whole water thing, and I guess that was another great little quote about how it was practically non toxic in water, they are just too wonderful.

Steven Brunner: Good evening, my name is Steven Brunner and I am from the Monterey Peninsula, um the Supervisors are here tonight to balance the cost and the benefits, the State has presented the benefits of the spraying we would ask do you have any data on health effects and the cost of what your citizens are going to suffer. That data has been left off here. The data that I have not seen is the affidavits of over 100 people who sent in these affidavits. Its not a prepared thing, they are just people notifying you or sending their affidavits and people reporting their illnesses and these were put into the lawsuit that was submitted during the stay of this spraying in Monterey.

Now, have you seen the affidavits, has the State given it to you, has the County given it to you, because I sent the information to the County, I sent it to whoever would want it. The people who are in this lawsuit have it but so far I do not think anybody has ever looked at the affidavits of what has happened to the people. Now, why have these reports not been followed up, your citizens are going to get sprayed here. You have the experience of Monterey. You do not have to guess what is going to happen, go look at the affidavits and then ask who is going to take care of the people. I'm going to read you my little scenario affidavit, and this is written about two days before I got an e-mail from a friend who said Steven you have been suffering why don't you send these people who are collecting affidavits, ok, this is it, sir, the short answer is that I have and continue to suffer from chest pains sore throat irritated tongue and I have sensed a funny taste and smell of the air. Some background, the day the spraying started I went to stay with a friend who lives near River Road in Salinas, there were no problems, on Monday afternoon I went into Seaside to check on some automobile repairs I was there for about an hour and had to leave. I developed a sure throat, chest pains, tingle ling sensations in my mouth. I ran back to Salinas and went inside and the symptoms cleared in about 3 hours. A few days later I went back into Pacific Grove in the County Club area of Pebble Beach and I had to leave again with the recurrence of the same symptoms. Again, I went into the house I was staying in, in Salinas and the symptoms cleared after a few days. I returned to the County Club after the spraying was completed, I remained inside where I live until I needed to do some business in down town Pacific Grove where my symptoms were aggravated <Chairperson Beautz, cuts in to say that he is well past his time limit>, continues: ask for the information that is out there and don't make a decision, there are people out there that do not want this on their fellow citizens.

Theodore Carey: Hi my name is Theodore Carey and I have spent about the last 10-15 years fighting the lies of scientist that work for the government. Unfortunately I am not alone, I would like to say what an honor it is to be in a room full of so many well-informed and well-spoken citizens. I thank all of you. Incredible. My issue is the health issue and I am following up on this gentleman. We have people from the California Department of Agriculture. They are doing what they are paid to do, represent agriculture. So where is the equal spending, funding, planning, by the Department of Health for those of us who may have adverse reactions to a chemical that we are not being told what it is. It does not seem too much of us to expect that the same amount of planning would and should be coming from the Department of Health in terms of setting up um programs to track and treat anyone who might have an adverse reaction to the spray. Is it too much to ask or is it once again just about the profits and its not about the people. What are the plans being made by the Department of Health who is not here, or by anybody else in County Health who is also not here to deal with the side affects of the spraying, and will there be any follow up. Apparently, they are not even following up on the people who were injured in Monterey and we are supposed to believe that they have our best interest at hart. Um, again, thanks to everybody here I'm just so glad to not have to say more than that. Thank you.

Marylyn Garrett: Marilyn Garrett - I also want to thank the people who are here and who have spoken so beautifully and for justice. Um <unintelligible> dam it - you have

no right to be spraying us, none, we do not give our permission for you to be <unintelligible> freedom from pesticides everybody is right as the sign says. Some basic facts, about 99.9% of pesticides or more go off their target, they do not reach their target pest, who is the target here then, us and our home environment upon which we depend for our well being? Another point, pesticides sprayed in the tropics are found in high concentration in animal tissues in the Pacific North West those particle pesticides are carried down on the stream and when you say you are not going to spray near the oceans and water bodies, what a hoax! Give me a break! Why do we all have a toxic <unintelligible> in our bones, thanks to the chemical corporations who I'm sure <unintelligible>. Here is another book, toxic deception and how the chemical industry manipulates science bends the laws and endangers your health. We've had a good example of that today. Last presentation, toxic sludge is good for you, lies, damned lies in the public relations industries. We do not need lies, we do not need to be sprayed we call upon you, our servants, to represent us and stop this because once they start it will go on, and on, and on, and on. Do not let that happen for us, for your children, for your grandchildren, for any leaving species.

Unidentified Citizen: Unidentified female – Thank you to the Board of Supervisors for listening. I am here as a Santa Cruz resident, a mother, and someone who has been disabled for the last 27 years as a result of a chemical injury from a government eradication program. These are serious issues. I really need personally for the least toxic solution to be found to this problem if in deed it is a problem, which I am in fact not convinced of. I'm not convinced that what's been proposed is the least toxic solution. I notice that there is a disincentive for, a financial disincentive for Suterra to have their product actually solve the problem 'cause then their contract would end. I notice that there's a lot of fear going on, that there's fear mongering by the State trying to get us to be afraid of what will happen if the spraying doesn't happen and that people are really afraid of what will happen if the spraying does happen, and I believe it's very important in a situation like this that decisions be made based on facts, not on fear, and so, it's your job, really, to find out what the facts are. I don't believe that can be done before the beginning of next month and that it's absolutely imperative that the immediate plans for spraying be stopped. It doesn't make any sense to spray the stuff in the rainy season, anyway, given that it's not supposed to get wet. Um, it's not an emergency. I'm absolutely not convinced that it's an emergency, and I hope that you will take seriously the responsibility to really get to what the facts are here and to take whatever action you can to stop the spraying now, forget what the best solution is, and ask for the community support in instituting that solution. Thank you.

(applause)

Dave Cavanaugh: Hello, my name is Dave Cavanaugh. I am a horticulturist, um, and, uh, I applaud people coming down here wit the no spray signs because that's exactly what the nursery industry is trying to get away from. For those of you who don't know the rest of the story, uh, the nursery industry is presently under regulations to spray something considerably more toxic than the pheromone sprays, and what they're trying to get out from underneath that regulation. Uh, the pheromone sprays offer us the choice

and the chance to remove ourselves from that. Uh, again, we're a green industry, we, we want to, we want to protect the, uh, environment as anybody else does, but we need the help of the pheromones to reduce LBAM populations surrounding our nurseries and agriculture in general. Um, I am not, um, a capitalist by any, sss, by any, uh, any, uh, uh, measure because, uh, I just recently had a grandson, I do care, I raised my family on my own piece of property around agriculture, I've been very conscientious much like you folks are. Um, I would, I do support again the use of pheromone. I think there's some questions need to be answered, but I think that, uh, in the long run it's going to be the appropriate way of dealing with it on a large scale to reduce the populations area-wide. Um, I don't know how you're gonna treat a whole forest of redwood trees that'll host for LBAM, if you do the pheromone strips that could work. So, so it really has to be some intelligent decisions made about these things, and I think that I, and I really applaud CDFA and the USDA for coming down here and taking the heat. This is not a comfortable place for them to be <unintelligible>. So, um, I just hope that intelligence will prevail and that we understand the overall problem and that reducing the populations will help everybody eventually. Thank you.

Beautz: Thank you.

Unidentified Speaker: I think the problems with the nurseries <unintelligible> the USDA requirements placed on the nurseries that's causing problems for them. Um, basically, I haven't heard that redwood trees are a host, but, um, the other things is is that insects are here for a reason. Every God-created creature is here for a reason, and when we go around manipulating nature, we've always found it's been a mess. And, um, what insects are going to attack is the unhealthy plants, so if our agriculture would learn to produce healthy plants, if they would start going organic, healthy plants come from healthy soil. Wh--, what we're doing to the soil is, um, and she is helping the poor golf course people learn how to manage their golf courses in a healthy way because, uh, my neighbor manages a golf course with pesticides, and I've argued with him for a long time, so maybe she's changed his mind, but on the other thing is, um, these things that were being foisted on us like fluoride that are going to cause lower lumb--, bar paralysis of the legs, mercury in our, our immunizations that causes auto--, autism and Alzheimers. When your child gets a influenza, uh, immunization shot and has a high-pitched scream, that's because slowing of the brain has occurred. If that happens, it's due to the inflammation of the immune reaction, and put ice on the side of your child's head of the immunization, and you may reduce his chances for brai--, brain damage, otherwise, watch out. Um, Mad Cow's, that's the fair thing. Mad Cow's is the fair thing that Mad Cow's are not caused by eating mad cows, it's caused by phosphates, fertilizers, military waste, high manganese, and jet sounds. So we can eat mad cows and check out this website, write it down, westonaprice.org., and I beg you to join the Hope lawsuit. Google Hope Monterey Apple Moth, and you'll find their website, and they're, they have the best information, they have the best information to, um, pursue this, and we need to, we need to start going organic, we're pulling the rug out from under us.

Beautz: Your time is up. Could you....

Unidentified Speaker: I understand, but we need to, I need to say this. We need to go organic, and we all know it. We're chan--, everybody's changing. This is a new thing, we're all ready, so listen to your heart, these people just have jobs, and they're, they're stuck in this. Listen to your heart, go for the gold, and learn what's killing us. My mom died, that's how come I know this, this much of what's being done to us. My mom died because the doctors couldn't cure her 'cause the AMA is a--, is against us. The AMA…

Beautz: You need to stop.

Unidentified Speaker: No, listen.

Beautz: You need to stop. Well, you've had your turn.

Unidentified Speaker: I'm sorry, but you're gonna….

Beautz: Well, I'm sorry, too, but, then, other people don't get to….

Unidentified Speaker: The AMA, yeah….

Beautz: …speak….

Unidentified Speaker: I--, I'll give 'em one more minute….

Beautz: No.

Unidentified Speaker: No.

Beautz: No.

<Unidentified Speaker>: No, no I'm sorry. The AMA, I'm sorry that you think that you're afraid that I shouldn't say something about the AMA.

Beautz: No, I think we said it in the beginning how much time each person has…

<Unidentified Speaker>: No, I am gonna say it. The AMA is, is caused by….

Campos: Let's have a five-minute recess, please.

Unidentified Speaker: What?

Beautz: Yes.

Unidentified Speaker: …not helping the cause.

Beautz: No, you're not.

Unidentified Speaker: You don't know what I was gonna say.

Campos: It has nothing to do with spraying.

Unidentified Speaker: The bullshit. It does, too.

Beautz: Okay, can we have the next speaker, please:

Martha Mitsford: My name is Martha Mitsford, and I'm just helping some friends tonight, and they asked me to come, they have three young kids, and they asked me to come. My nephew is extremely allergic to, he's very asthmatic and so I speak with concern for people like this including my dear ones. Um, also I was interested in the health, and I don't, I wanted to hear of what the gentlemen in, in Monterey had to say, so I'm gonna give him my time.

Beautz: No, we don't, we can't to that.

Campos: We, we don't do that.

Beautz: We don't, we don't time, you take your time here and he's evidently sending us written information on where trap, where it is. You know actually…

Martha Mitsford: Could I ask you another question? <speaking at the same time as Pirie>

Pirie: …that you started by saying about your nephew is something….

Martha Mitsford: …is extremely allergic and asthmatic, and I'm very, very concerned about that.

Pirie: Thank you.

Campos: <unintelligible>

Martha Mitsford: Yeah. And I guess the other thing that I, I will offer is that I would be happy to volunteer for that's an organic, um, if it's the pheromone traps with the twist ties, I haven't gotten all the research and all the information that some of the people in this room, but I do volunteer to go over on and help in the neighborhoods to make sure that we don't have to be sprayed. Thank you.

Beautz: Thank you.

Claire Allen: Hi, my name's Claire Allen, and I live in Aptos, and I am a mother of a very beautiful, perfect little three-year-old girl who I protect with my life every day, and I try to keep her environment as safe as possible. Um, actually, there's been so much wonderful stuff said here, and I'm not wanting to repeat that, but the one thing I haven't

heard from others, why aren't the notices being sent to people's home until a week before the spraying? I go to playgrounds every single day all around this community, and I speak with other parents, and I asked them about the spraying, and they are not aware that this is going to be taking place. This room, this whole building would be packed, I, not everybody reads the paper or watches the news. Why are you waiting until the last minute to let the population know about this, and I think that's because they don't wanna let the population know, they wanna spring it on us.

Nita Hertel: My name is Nita Hertel, and someone said earlier that they smell a rat, and the rat that I smell when I read information that I've been reading off of websites and so on is that Suterra made, uh, the owners of Suterra, the CEO, have made a hundred, uh, hundred, almost hundred and forty-five thousand dollars contribution to – that they would be the corporation that's chosen to make this application and have it rushed through without proper due process. That's, uh bad, as far as I'm concerned. And the other thing that really is, um, disappointing to me is that when the public gets up to speak and present information that's not provided by the State, all the cameras disappear. Where are people that don't come to these meeting gonna get that information if all the cameras disappear? It's your responsibility as our elected officials to provide more information to people, and some of this, the testimony is stuff that we're not gonna read in the papers.

Campos: See that camera right there?

Beautz: We are, we are being broadcast by community television, and they will rebroadcast this on some schedule that I'm not aware of, so....

Nita Hertel: I understand, but community t.v. is cable...

Beautz: ...it is possible <speaking at the same time>

Nita Hertel: ...and it's. I understand that, but community t.v. does not reach of, the broad specter of people in this county.

Unidentified Speaker: I am really nervous. I just got, uh, I'm a registered nurse, and...(breathing hard). Sorry (begins to cry). I wanted to continue with what the man from Monterey is talking about. Some people, okay, okay. Some people are sensitive, and some are not. It does not help when a city official says that things are back to normal, birds are not falling from the skies. It does not help that prominent people on the peninsula who can generate media coverage against this spraying cannot speak out because they are not sensitive to the sprays or to, or to the situations of the neighbors. It does not help when the medical community does not take a lead in opposing this spraying because some in--, industry or government authority sanctions it. I am part of the medical community, and I am speaking out, and I do see people with asthma, and they're gonna have problems with this, and that got off the track. I wanted to read his statement. It does not help when the laws of our society protect the current structure of the agriculture industry more than the health of its citizens. It does give the citizens of the peninsula some insight into the problems and frustrations of people living along side the

government approved spraying of crops and the members of the armed forces living with the aftermath of the "safe" inoculations or the people of Iraq living with the "harmless" residue of depleted uranium. Thank you.

<applause>

Marie McEntee: I do have a little reservation of speaking in front of a group. My name is Marie McEntee, and I, um, go along with most of the people who have asked you to look into this and to join the, uh, lawsuit in Santa Cruz, but I would like you to know that I found this on <unintelligible> Watch, and I'd like to read it to you. It says that Mr. Kawamura donated $21,200 to Arnold. He is a past chairman of the Western Growers Association which has been a vocal opponent of legislation protecting farm workers and the environment enacted over the last few years. The Food and Agriculture Department is responsible for environmental, public safety and other regulations governing agricultural interests. Mr. Kawamura's appointment is incongruous. It places a man who's run an anti-regulation organization in charge of developing and implemenetation of regulatory safeguards. Farm workers and the environment in farming communities are bound to suffer when agribusiness take the forefront at the Department. I suspect there is a possible conflict of interest...

Campos: <speaking at the same time>

Marie McEntee: ...and I wanted you to know that, um, he was one of, uh, four or five appointees by, um, the governor after the contribution.

Campos: Thank you.

Beautz: So if anyone else would like to speak, this is the time to get up here to the microphone. Is there anyone else that wanted to comment on the subject now? This is the opportunity to do that.

Unidentified Speaker: I'm really sorry about the <unintelligible>, but...I'm someone who has, uh, multiple chemical sensitivity. I've got obstructed lung function problems, and I've got hyperactive airways because of repeated chemical exposure to something I was told was safe. That was about a little over 10 years ago, so I've been struggling, uh, you can see, I can't walk up all the stairs to get here. It's changed my life dramatically. What I've read about this spray, what I've been able to find on the internet says "people with the, at highest risk for this are asthmatics, people with allergies, and people with obstructive lung disorders." So for me, this is really scary because it means I'll have to leave, um, fo--, at least for, when I thought it was a week without anywhere to go, and I, and, and it being very difficult 'cause I can't work a regular job so I work from home from the safety of my home, then I find out that it's gonna be 30 days with still more in our air and then we get sprayed again and that this can go on for years. I mean, that would mean I would have to move out of an area that I've lived for over 25 years, and I just don't think it's right. It's like being attacked. And I think our constitution guarantees us the right to life, liberty, and the pursuit of happiness, and I think this

definitely threatens our liberty and the other two for me. <laughs> Thank you, <unintelligible>.

Campos: Could you give us, Miss, could you give us your name for the record, please?

Ann Spurgeon: My name is Ann Spurgeon.

Campos: Thank you.

Ann Spurgeon: Thank you.

Beautz: Now there've been, I've been keeping track of questions that are asked often, and this inhalation in lungs with people who have chemical sensitivity <unintelligible>, can someone, um, address that on the panel here when people are concerned there seems to have been some reactions in Monterey. What would you say as an answer to that?

Campos: Dr. Warren?

Dr. Warren: Uh, the, the slide showed earlier that showed the actual size of the microcapsule which is around....

Beautz: You have the thing turned on there.

Dr. Warren: I'm sorry. Is that better?

Beautz: Yeah.

Dr. Warren: Sorry. Um, where we showed, you now, the, the range of the size of the mircrocapsule that based on the range that's present in the formulation of the mircrocapsule that it, it's very unlikely that it could even make it into your lungs because it would be trapped in the back of your nasal passages and then you would expel it through sneezing.

Unidentified Speaker: Oh, come on!

Beautz: I asked him....

Unidentified Speaker: Boo!

Beautz: I asked him to answer a question, and I, I'd like to hear the answer. You don't have to agree with the answer or whatever, but I'd like to hear what it is.

Dr. Warren: And, and the bead, the bead, the inhalation hazards, uh, you know, there's been comments about that this would be a chronic exposure to that mircrocapsule. In fact, that would not be the case. It would, you know, the mircrocapsule is used to deliver the pheromone into the surrounding area, and it's a synthetically produced pheromone

that mimics the natural pheromone which is already being produced and there's exposure to already in the area.

Beautz: And someone asked about it being biodegradable, these, the whole product. Could you....

Dr. Warren: The pheromone itself, uh, as I mentioned during the presentation, in the atmosphere it only exists for about a day. Uh, in the soil it can range anywhere up to a coupla days. It depends on the ph of the soil or the soil type, but it's very, very, very limited in the environment.

Beautz: Somebody else asked why you're spraying different things in different communities, um, evidently in Monterey there's a different product from here. Is that....

Dr. Warren: Well, um, it was discussed during the presentation the, the product that was used in the Monterey area was the ORLF formulation which is a, a pheromone that's more general to <unintelligible>. The formulation we're using now is more specific to LBAM so it allows us to make an application that's much more species specific to that insect.

Beautz: So why wouldn't you do that in Monterey, then, too?

Dr. Warren: Well, I think at the time, correct me if I'm wrong, it was, it was an issue regarding availability of the product, but at the time there was very unique component to the LBAM that makes it very specific to that moth species, and the product was not available, but it doesn't mean that it', it is only general in the sense that it, it's specified a certain group of leaf rollers of moths, but this different formulation that we're using now is much more specific to LBAM.

Beautz: So when you go back to Monterey, will it you be, be using a product which seems to – you're saying it works better?

Dr. Warren: I think it, well, I, I think at this point that's what we're gonna be using from now on.

Beautz: Okay, um, I have this question, too, but a couple of people in the audience wanted to know, like, when you change the schedule, I mean, one thing people can do if they really they're really concerned is not be there, but you have to know the schedule to do that. I mean, people can't usually just kinda go away for like a whole week at a time, so when you basically, you know, when it's raining and you can't do it today, does the schedule, does it just go, you know, how is it announced what the schedule has become after, when you change it according to things like weather.

Dr. Warren: John, you wanna answer this?

Connell (?): When the schedule changes due, due to weather, the, the, uh, two ways basically. The notices sent out to the, to the residents in the affected area states these are the days we are going to do treatments. If it's delayed due to weather or other causes, the next available day which would be the very next day we've got spraying will continue. Um, if we are delayed, we, uh, put the notice out in the media, the public media, radio, newspaper to notice that we're, we're delayed and, um, as I mentioned earlier in the presentation, there's a LBAM, um, hot line and the, uh, if, if resident choose to sign up on our notification e-mail system, they would get a notice that says we are delayed, treatment is expected to resume on whatever the next, you know, the day is and so they can get notice that way as well. And so if, if there's somebody who's out of the area a lot, some of it's a web-based, uh, system, they can check and see if, whoops, I shouldn't be back if they wanna avoid exposure.

Beautz: Okay, um, well Board members didn't get a chance before we asked the public for comment, so if Board members have questions or concerns we'll start at this end. Supervisor Stone.

Stone: Uh, I, I have several questions. I asked a couple of times and haven't really, uh, received a clear answer yet. I mean, <unintelligible> process, how, how, is the Department managing the CEQA process? Where is the environmental review, uh, that we should be expecting?

Kawamura (?):: The environmental review will take, uh, anywhere from six months to a year is the projected, uh, assessment for that, and that's the time frame that we'll need basically to complete to be able to complete that.

Stone: So you're planning on spraying before you, you have had an opportunity to do a full CEQA review and address <applause>, how, how are you planning, then, on addressing alternatives?

Kawamura (?):: On the, uh, uh, you know, the alternatives to the spraying?

Stone: Yes.

Kawamura (?):: Under CEQA review requires alternatives, a review of alternatives, and if you're needing

<speaking at same time>

Kawamura (?):: The previous tools that we've used for eradications include, uh, BTs, uh, and which would, uh, then affect all the other, uh, moths and, and butterfly species. Uh, we've certainly in the past, way in the past used a malathion or some other…

<speaking at the same time>

Kawamura (?): ...applications of pheromone. The applications in terms of, uh, <unintelligible> traps.

<speaking at the same time>

Unidentified Speaker: I'll, I'll answer that question.

Kawamura (?): I, I will say this....

Beautz: You should be quiet while he answers.
Kawamura (?): Twist ties have been, uh, a, uh, as was mentioned early on in our presentation in, in many of the different areas around the State where we've had small infestations, twist ties and a BT application has been the, the method that we've been able to do and in a ground attack to be able to knock down that population, and, and basically shut it down in that area. Uh, I, we mentioned in this specific area, unfortunately, the amount of infestation, this, the, this, the scope of, uh, area in which we're finding enough moths preclude us from using the twist tie method. It just is too big of area for us.

Stone: My, my, my concern is really more process....

Kawamura: So, let me ask John to address that process as, as it, as it, as it is and with all the d--, different eradications that we have. Uh, the, the process has, I think, one of the, the, um, speakers also addressed is, the Department has a, uh, uh, a regulation exemption under CEQA during a declared emergency to continue to, to go forth and do an eradication program. At the same time, we are, uh, going through the process of preparing an EIR. The USDA also prepared an environmental assessment on the, um, nature of the problem and included in there some of the alternatives. The alternatives are, are, we've clearly stated are, is twist ties we've used in, in <unintelligible> small infestations areas where it's practical to actually cover that amount of territory, it's not practical over uh, in areas as large as Monterey-Seaside, Santa Cruz, this whole coastal plain with the, the size and scope of the infestation. You just cannot put twist ties out fast enough to, um, affect the mating population the same way you can with a, a, uh, aerial application that covers a lot of the same territory in a very, very short amount of time. Uh, BT is a, an alternative. We use it in a very small area in Napa and Oakley because it was the only alternative at the time, uh, to deal with the infestation. The consequence of wide-scale, um, BT applications is that it's non-<unintelligible> specific to a wide range of other moths and butterflies, and, and the regulatory agency that, that look at the impact of what you're doing with the law over a large area would not let us go forth with that kind of a program because it affects other non-targets in particular in this area, the Monarch butterflies, as well as endangered Smith, uh, um, Smith and Mission Blue Butterflies along the coast. So, so if that's not possible, the sterile insect technique has been mentioned while the research is going on in, uh, um, Australia and New Zealand for sterile moths, that technology is not nearly ready to approach the scale of here in California that would be needed. We have cooperated with, uh, the, um, Australians and New Zealanders on the, uh, expansion of that technology, we use similar technology for Pink Boll Worm, uh, control and eradication in California and Arizona. We shared with

them the technology that it takes to <unintelligible> large numbers if they can share with us the technology <unintelligible> and what it takes to actually make a colony survive, and when that gets, when those two areas can get combined, then we have an opportunity to use sterile moths here in California, but that technology is not ready. And it may take at least two years for that to actually come to pass. You have to build a facility. You have to <unintelligible> it up. You have to make it practical. Not a bad approach, but it has to be, uh, capable of being accomplished, and it just takes time. In an emergency, you don't have two years to wait for something to come along. The other technologies that have, um, uh, been discussed include, um, um, uh, parasites and predators. Well, the moth didn't come with those natural parasites and predators, and you just can't bring in, import in, uh, those types of organisms without, you know, testing themselves. You kind of lose some place where, they, they themselves are not known to exist, and they may transfer to, uh, species here in California that you don't want the impact. So that process takes times as well. We already started colonies at the UC, um, excuse me, USDA research, uh, quarantine center in Albany, uh, in, uh, Alameda County to have a colony that let us at least examine what the potentials are of, um, bio-control agents, whether it is from a foreign source or from natural, currently occurring Trichogramma Wasp or other predators and parasites here in California to see if they can be effective against Light Brown Apple Moth as well. But those types of research also take time. So all those types of opportunities we'll consider and all those types of opportunities will be reconsidered under an EIR process as well, a--, and, and, so basically under the, under the, uh, the declaration of emergency, the, the Department has the authority to move forward with eradication steps. At the same time, we're cognizant of these other alternatives and trying to develop them as fast as possible.

Stone: Right, and the, the, the concern I have given the state of emergency is we're doing this most of this after application, and, uh, I'm not quite sure how else we, we get questions answered or do we really review alternatives and make sure that the right alternatives are chosen. For example, the question that I have is the efficacy. I know that from the twist tie standpoint, 'cause the growers here, the organic growers in this County use twist ties, and as I understand it, the efficacy is about 80%. Uh, what's the efficacy of aerial spraying?

Kawamura: Wide, widespread aerial spray hasn't really been accomplished other than, um, uh, Seaside-Monterey, and, as I've indicated, as I've indicated, this is not something, and this is, holds true for twist ties, as well. This is not something that's gonna kill the moth. This is something that confuses the population, suppresses the population to the point where it stops reproducing because they can't find one another. That hold, the same thing holds true for twist ties.

Stone: Um, no I understand that, but we're talking about spraying the population without necessarily an understanding of the efficacy of, of that application.

<from the audience>: Yes.

Kawamura: When it comes to control of, um, insect species, with maybe confusion, has been demonstrated successfully on a number of, of, uh, lepidoptera, uh, moth species. We don't see that it would be any different with Light Brown Apple Moth. The, the pheromone methodology, the pheromone science, the nature of an insect to respond to that pheromone is the same for Apple Moth as it is for Codling Moth as it is for a wide variety of other Tortrix.

<From the audience>: Answer the question!

Beautz: Would people please be quiet?

Stone: What, um, what's the status of the spraying program right now given the lawsuit in Monterey. Uh, I heard they extended the spraying program because Santa Cruz County's on hold. Is that true?

Kawamura: We're still waiting for this next Thursday when Judge O'Farrell will, uh, or before that if he renders a decision, and that'll have bearing on how we move forward with this application.

Stone: 'Kay.

Kawamura: Uh, I'd like to also just make a, a comment for, from the question that was asked regarding efficacy, and remind, uh, uh, remind everybody that when you have a new species that's introduced to this country, uh, no different than other countries receiving new species, uh, uh, on their side, um, there's a lot of questions that we don't answer, that we don't have the answers to because they haven't been here yet. We, we, a lot of this is a projected. There was a question that was asked, "What kind of damage can we see right now, uh, from this moth today." Uh, a lot of this is projected damage based upon what we know by the range, by the different things that we know it will eat knowing that our climate is compatible, knowing that there's a habitate range in the United States that would, uh, embrace this kind of an insect based upon that knowledge. So much of it we do with eradication and with, uh, calling an emergency in this country certainly, fortunately, it is based upon a projected damage, uh, in dealing, ah, ah, as a precautionary basis, we, because we think that it will cause trouble. We have a, a quahog mussel, for example, a Zebra Mussel that has been introduced, uh, now into the water systems here. If we had known it, uh, a little bit, uh, years and years ago, maybe we would have a better fight to keep it out of California. But we, now we know it's down in the Colorado system. After seeing what the damage it would do to an ecosystem, water ecosystem out of the Mississippi water systems, the, I, I think my earlier statement about dealing with invasive species still stands that i, it's a challenge that we have. There are several departments that deal with these challenges, diseases, and pests, and, and noxious weeds, as well. Um, I mean, how--, count upon the experts that we, that know these backgrounds, knows, know, uh, the potentiality for damage, whether it's to help, whether it's to, um, and there was a statement made earlier that, uh, we're focused on economics. We're focused on the health of citizens, of the environment, and we're focused in upon making those things fit within a system that allows us to provide. We, we can't really

afford to have a system that is just, let's just see what happens. I--, i--, it's difficult to just say let's see what happens when we have enough experts recognize a pest, and, and, and say, boy, if you can eradicate that before you let it get established, uh, that would be a first best step. We, we recognize over and over that prevention is the first best step, uh, taking out, uh, an insect early on when it shows up. A, any of these different pro, big problems that we've had in this country, uh, these are hard lessons we've learned. That's why our Department has the authority it does to deal with invasive species. Uh, uh, it's an authority that, uh, we don't take lightly, but it's something that we have in place because it's to protect this country. Uh, to protect our food systems, to protect, uh, environment from the invasive species that don't belong in, in, in, in our, in, in the country. Uh, and so it's, I know it's hard to understand, um, on any given species on any given in, infestation, when, when there's not a track record of damage, uh, I would, I would guess if we were here talking about a Gypsy Moth, uh, I would think there'd be a lot less protest because it has a track record in our country of doing some tremendous deforestation, and there are on-going programs today that deal with, uh, pro--, uh, pheromone release over, uh, many different areas, uh, uh, over the last seven years in our country because it's a, it's a, it's a, now into a control program. Uh, we have, uh, uh, a very severe insect called the Emerald Ash Bore, uh, in the Michigan area and the Ohio area. Uh, there is no pheromone currently for that pest, and we're hoping to find one because it's somewhat out of control, and now you have an entire, uh, species line which is ash trees endangered because, uh, we, we have an invasive species there. So, uh, maybe I'm, you know, maybe, maybe I'm not making a lot of sense...

<Audience>: Not you're not.

Kawamura: ...in terms of, uh, uh, uh, addressing what, what our mission is. Our mission really is, uh, as simple as this. We have, uh, enough experts to have given us the heads up that here is an invasive species, this Light Brown Apple Moth, that is not good for not only California. USDA concurs that it's bad for the United States, uh, and, and we have a chance to eradicate it. We, we're, we're gonna use the best tools we have possible to create the least amount of human damage, least amount of environmental damage, the least amount of everything is the least amount. Uh, I think there is criticism about why EPA can't come out and say a product is safe or why the pharmaceutical, uh, you know, can't come out and say a product is safe. No one seems willing to in the, the State, to say, oh, it's a 100% safe. 100% safe doesn't exist. We're trying to get to a 100% safe in, in a bag of salad. We're trying to get 100% safe in a head o' lettuce. We're trying to get to a 100% safe where nothing can happen, and I will say that it's a difficult, cha--, it's a difficult challenge, but we do expect a hundred percent. We're trying always expect a safer way of doing things, a better way of doing things, uh, uh, and I think that's what our commitment has always been. That's what my commitment has been, whether as a farmer or not. I am an organic grower. A lot of people don't recognize that. Uh, it's a difficult challenge to produce food for this nation whether it's a local food system, and we are big believers, enormously big believers of a regional food system that's viable, that's local, that's regional, that, uh, has a carbon footprint that's not just moving products all over the place. These are important times, we're in a transition. We know this. All of you know that we're in a transition in agriculture here.

<Audience>: <unintelligible>

Beautz: Excuse me! Excuse me!

Kawamura and Beautz: <speaking at the same time>

Beautz: ...just, just a minute, please.

Kawamura: I'm sorry.

Beautz: He's answering Supervisor Stone's question. We listened to you questions and comments, and we're not gonna just have people just scream out. So please don't do that again. Go ahead.

Pirie: If, if I could also say, I would, you know, uh, the people who stay in this Board sat here really attentively listening to all of you, and, so, when now, when you're trying to ask questions to help people calling and booing or laughing is really, um, it's not helping your cause, and it's not helping this discussion. So, please, you know, if, if you won't stay and listen to the discussion, that's great, but please do it quietly.

Campos: And, and along those lines, there's some questions you've asked that are very important about the illnesses, and we're gonna try to get to the bottom of that. Just give us a little time.

Kawamura: And, and, I'll just follow up by saying, th--, the current strategy we have is, is, uh, after, after, uh, much deliberation, the best strategy we've come up with, but you've heard already that there are other potential technologies that are coming down the road that as we move this project, uh, six months out, a year out, year-and-a-half out, that may become available, so it's not, uh, an absolute how we go about eradicating any, any, any insect. We're constantly in this battle of trying to make sure that they don't run over, overrun a certain, uh, uh, environmental zone. And then lastly let me just say that, that I know one of the bigger questions, I thought we'd address this. One of the biggest questions that came out time after time after time is the unknown about the inerts and how that, uh, how they work within this world. We're trying really hard to make sure that we can work with the manufacturer. It was mentioned many, many times during this talk, as well as with, uh, uh, the different federal agencies that do the oversight and the science review, uh, and see if we can't come up with further answers 'cause that was today pretty evident, that was a lot of people that if they knew more about all the ingredients, a hundred percent of them, they'd be able to make a better decision on where, where we go from here, uh, themselves. Uh, we're, we're trying really hard to just say, uh, I understand that there is a certain amount of anxiety or fear in one respect or, or a misperception. If we can replace the misperception, that, that would be our goal that we're gonna commit to doing that as best as we can.