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## **The LBAM Aerial Spray Program and Human Rights**

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- Matter of Concern:** Aerial pheromone/pesticide sprays over urban areas  
of California's Central Coast and San Francisco Bay  
Area
- Date:** April 3, 2008
- Contents:**
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## **Purpose of This Report**

The purpose of this Report is to provide the California Alliance to Stop the Spray (CASS) and the California Department of Food and Agriculture (CDFA) a list of international human rights norms of concern associated with CDFA's proposed aerial spray program, to outline CDFA's potential liabilities and to describe pathways the Department could take to minimize those liabilities.

## **Facts**

The California Department of Food and Agriculture has reported that a Light Brown Apple Moth (LBAM) was detected on February 27, 2007 in Alameda County and another on March 7, 2007 in Contra Costa County, and that populations are now found in nine California counties. CDFA has designated LBAM an invasive pest arguing that its feeding habits threaten the health of a variety of native, horticultural and agricultural plant species. CDFA has stated that unchecked LBAM spread could have an estimated economic impact of \$160-640 million.

CDFA declared the LBAM infestation an emergency in Alameda and Contra Costa Counties effective March 21, 2007 and subsequently added seven additional counties to the emergency regulation. This declaration exempts the Department from the requirement to file an Environmental Impact Report normally required under the California Environmental Quality Act.

CDFA's stated goal is eradication of LBAM from California, a project they anticipate will take several years. The Department has proposed a multifaceted strategy involving trapping, quarantine, ground insecticide sprays (with permethrin, Spinosad and Btk formulations), larvicides, introduction of parasitic wasps that feed on moth eggs, and mating disruption via ground deployed male attractants, twist-tie pheromone applications and, the primary tool, broadcast aerial spraying of commercial synthetic pheromone/pesticide products.

CDFA initiated aerial spraying in September 2007 with an application over the cities of Seaside and Monterey in Monterey County followed by a second aerial application in November 2007 over urban areas of Monterey and Santa Cruz counties, including the cities of Pacific Grove, Monterey, Seaside, Marina, Sand City, Salinas, Prunedale, Santa Cruz, Capitola, Aptos and Soquel. CDFA has announced plans for aerial sprays, beginning June 1, 2008 and spaced 30-90 days apart, over Monterey, Santa Cruz, San Francisco, San Mateo, Alameda, Contra Costa and Marin counties. Spray zones within those counties encompass approximately 680 square miles (435,200 acres) and include approximately 3.1 million people.

A Consensus Statement on the anticipated probable toxicity of the synthetic pheromone/pesticide formulations to be used in the aerial sprays was drawn up jointly by the California Department of Pesticide Regulation (DPR) and the California Office of Environmental Health Hazard Assessment (OEHHA) using “available health and safety data.” No Health Risk Assessment has yet been provided.

The California Alliance to Stop the Spray is a newly formed citizens’ group located in the Monterey Bay Area working to oppose involuntary pesticide spray plans. CASS was organized in 2007 to serve as a coalition of citizen groups that had arisen in response to CDFA’s plans to conduct aerial pheromone/pesticide sprays. CASS’s stated goal is to prevent involuntary pesticide spraying.

## Issues

CASS is concerned about reports of serious adverse acute health effects resulting from exposure to the aerial spray and spray residues, potential long-term health effects that may result from acute or prolonged exposures and a number of other impacts on the lives and property of citizens who live in, work in, visit or travel through proposed spray areas.

## Human Rights Norms to Consider

Environmental concerns often directly impact human rights, and part of the purpose of this Report is to help CASS and CDFA appreciate the human rights dimensions of the proposed aerial spray program. As Daniel Taillant, Director of the Argentina-based Center for Human Rights and the Environment says, “Everything and anything that influences the environment directly influences our human condition, and a violation of the environment is a violation of our human rights.”<sup>1</sup>

Listed below are 23 specific human rights norms that may have direct relevance to the CDFA’s proposed aerial spray program. (This list does not include rights that may be protected by the US or California constitutions or by state statutes.) These norms can be found articulated in several different human rights declarations, conventions, charters and other international instruments, including:

- *Universal Declaration of Human Rights (UDHR)*<sup>2</sup>
- *International Covenant on Civil and Political Rights (CCPR)*<sup>3</sup>
- *International Covenant on Economic, Social and Cultural Rights (CESCR)*<sup>4</sup>
- *Convention on the Rights of the Child (1990) (CRC)*<sup>5</sup>
- *Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)*<sup>6</sup>
- *Rio Declaration on Environment and Development*
- The World Health Organization *Declaration of Alma Ata*<sup>7</sup>

- *The Nuremberg Code*<sup>8</sup>

The first three documents above, *UDHR*, *CCPR* and *CESCR*, are usually considered primary and are often referred to as the international bill of human rights, so in the list below they are given a certain pride of place when identifying documents in which specific rights are articulated.<sup>9</sup>

## 1. Right to life, liberty and security of person.

### **Articulated in**

*UDHR* Article 3

“Everyone has the right to life, liberty and security of person.”

*CCPR* Article 9

“Everyone has the right to liberty and security of person.”

*UDHR* Article 13

“(1) Everyone has the right to freedom of movement and residence within the borders of each State.”

### **What this right entails**

This is the right to be safe and secure in one’s person.

The right to liberty entails the freedom to move about within the boundaries of one’s state.

### **Reasons for concern**

- Documented reports of adverse physical health effects associated with aerial spray exposures.
- Potential adverse health effects attributable to exposures to aerial sprays, drift and residues include respiratory, cardiovascular, dermal and neurologic effects, as well as miscarriages and birth anomalies, particularly for pregnancies conceived or carried during periods of exposure.
- If any citizens consider their freedom of movement to be restricted due to their need to avoid aerial sprays, drift and residues, particularly if those restrictions result in documentable economic loss, that would be a concern.
- If any citizens consider that threat of injury from spray exposures will require them to move out of the area, particularly if that would result in documentable economic loss, that would be a concern.

## 2. Right to privacy and home

### **Articulated in**

*UDHR* Article 12

“No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence....”

*CCPR* Article 17

“No one shall be subjected to arbitrary or unlawful interference with his privacy, family,

home or correspondence.”

### **What this right entails**

This is the right to be secure in one’s home , to be able to enjoy the use of one’s property and to not have one’s property devalued as a result of state actions.

“The European Human Rights Court noted that severe environmental pollution may affect individuals’ well-being and prevent them from enjoying their homes in such a way as to affect their private and family life adversely, without, however, seriously endangering their health.”<sup>10</sup>

This means that adverse health effects are not the only kind of adverse effects that violate the right to one’s property and home.

### **Reasons for concern**

- Discomfort experienced at home, or a compromised ability to enjoy one’s home and property due to exposure to aerial sprays, drift or residues, even without adverse health effects.
- Potential adverse physical health effects related to aerial sprays, drift or residues and suffered in the home.

## **3. The family’s right to protection**

### **Articulated in**

*CCPR* Article 23

“The family is the natural and fundamental group unit of society and is entitled to protection by society and the State.”

*CESCR* Article 10

“The widest possible protection and assistance should be accorded to the family, which is the natural and fundamental group unit of society, particularly for its establishment and while it is responsible for the care and education of dependent children.”

### **What this right entails**

This means that the health, strength, well-being and social integrity of families must be protected and supported; if these become compromised as a result of sprays or the spray program then this right has been violated.

### **Reasons for concern**

- Adverse physical or economic effects on families attributable to aerial sprays, drift or residues.
- If the health or well being of families, including economic well being, have been adversely affected as a result of the sprays, that would be a concern.

## **4. Right to property**

### **Articulated in**

*UDHR* Article 17

“No one shall be arbitrarily deprived of his property.”

### **What this right entails**

See number 2 above regarding the right to privacy and home.

### **Reasons for concern**

- Any adverse physical or economic impacts on property or property values attributable to aerial sprays, drift or residues.
- If individuals, families or businesses have been forced to leave or sell their property due to the spray program, that would be a concern.
- If individuals' or families' ability to enjoy the use of their property has been compromised due to the spray program, that would be a concern.

## 5. Right to work

### **Articulated in**

*CESCR* Article 6

"The States Parties to the present Covenant recognize the right to work, which includes the right of everyone to the opportunity to gain his living by work which he freely chooses or accepts, and will take appropriate steps to safeguard this right."

### **What this right entails**

This right refers to the right to work and, by extension, the right to be able to transport oneself to work without being made sick along the way.

### **Reasons for concern**

- Citizens who become unable to work because of disabilities resulting from exposure to aerial sprays, drift or residues.
- Citizens who are unable to work because their place of work is located inside the spray zones.
- Citizens who may be unable to transport themselves to work due to their need to avoid exposure to aerial sprays, drift or residues.
- Workplaces that have been contaminated by the sprays enough that some workers are unable to work or keep their jobs would be a concern.

## 6. Right to safe and healthy working conditions

### **Articulated in**

*CESCR* Article 7

"States Parties to the present Covenant recognize the right of everyone to the enjoyment of just and favourable conditions of work which ensure...[s]afe and healthy working conditions"

### **What this right entails**

This entails the right to a safe and healthy work environment.

### **Reasons for concern**

- Adverse physical effects experienced in the workplace that are attributable to aerial

- o sprays, drift or residues.
- o Workplaces becoming less safe for some as a result of contamination by aerial sprays, drift or residues.

## 7. Motherhood and childhood's right to special care

### Articulated in

#### *UDHR* Article 25

"Motherhood and childhood are entitled to special care and assistance. All children...shall enjoy the same social protection."

#### *CESCR* Article 12 (section 2a)

establishes the obligation of states party to this Covenant to take steps to make "provision for the reduction of the stillbirth-rate and...infant mortality and for the healthy development of the child."

#### *CRC* Article 27

"1. States Parties recognize the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development."

### What this right entails

This is the right of children and their mothers to be provided special care, protection and assistance. This means that states have a particular duty to protect children and mothers from anything, including environmental toxics, that may compromise the child's physical, mental, spiritual or social development.

### Reasons for concern

- o Research indicates that children are at much greater risk than adults because of their increased biological susceptibility to adverse health effects from exposure to environmental exposures.
- o Research indicates that fetuses and pregnant mothers are at risk for adverse effects from exposure to pesticides.
- o If mothers, and mothers' ability to be good caregivers for their children, are adversely affected by aerial sprays, that would be a concern.

## 8. Duty to protect the child (i.e., persons under age 18):

### Articulated in

#### *CRC* Article 19

"States Parties shall take all appropriate legislative, administrative, social and educational measures to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, [or] maltreatment...."

#### *CESCR* Article ten (section three)

"Special measures of protection and assistance should be taken on behalf of all children and young persons without any discrimination for reasons of parentage or other conditions."<sup>11</sup>

### What this right entails

This is the child's right to special protections, and the state's duty to provide special

protections, from infliction of harm, including harm that could result from unavoidable exposures to environmental toxics.

**Reasons for concern**

- See above.

9. Right of the child to the highest standard of health

**Articulated in**

*CRC Article 24*

“States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health.”

**What this right entails**

This is the right of children to live in safe and healthy conditions, including safe and healthy environmental conditions, and not to have to undergo exposure to conditions that adversely affect health.

**Reasons for concern**

- If a government agency undertakes any activity that puts children at increased risk of adverse health effects, that is a concern.
- Adverse health effects attributable to exposures to sprays, drift or residues can include respiratory, cardiovascular, dermal and neurologic effects, as well as miscarriages and birth anomalies, particularly for pregnancies conceived or carried during periods of exposure.

10. Right of everyone to the highest standard of health

**Articulated in**

*CESCR Article 12*

“States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.”

**What this right entails**

This is the right to live in conditions conducive to the highest standard of health.

**Reasons for concern**

- If a government undertakes an activity that puts citizens at increased risk of adverse health effects, that is a concern.
- Adverse health effects attributable to exposures to sprays, drift or residues can include respiratory, cardiovascular, dermal and neurologic effects, as well as miscarriages and birth anomalies, particularly for pregnancies conceived or carried during periods of exposure.
- Adverse psychological health effects believed to be related to spray exposures are also of concern

11. State’s duty to provide for the health of citizens

### **Articulated in**

The *Declaration of Alma-Ata*, Article V

“Governments have a responsibility for the health of their people which can be fulfilled only by the provision of health and social measures.”

### **What this right entails**

This more clearly reframes the right to health as a duty of a government to its citizens to provide for the health of its citizens.

### **Reasons for concern**

- See above

## 12. State’s duty to provide for the health of citizens demands coordinated efforts of all sectors

### **Articulated in**

*Declaration of Alma-Ata* Article VII

[Provision of health measures includes,] “in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and demands the coordinated efforts of all those sectors.”

### **What this entails**

This article elucidates the meaning of “provision of health and social measures,” saying that the state’s duty to provide the highest standard of health for its citizens extends beyond just the health sectors of governments; it involves all other sectors as well, including the responsibility to see that the industrial, manufacturing and agricultural sectors are regulated in ways that are protective of citizens’ health.

### **Reasons for concern**

- This article says that in addition to departments of health, all government departments, including departments of agriculture, forestry, transportation and other agencies that deal with chemicals and other health risks also have a positive duty to protect the health of citizens.

## 13. Right to a healthy environment

### **Articulated in**

*Aarhus Convention* Preamble

“every person has the right to live in an environment adequate to his or her health and well-being, and the duty, both individually and in association with others, to protect and improve the environment for the benefit of present and future generations.”

### **What this right entails**

This is the right to live in an environment that is conducive to health.

### Reasons for concern

- If aerial sprays, drift or residues compromise the environment or cause conditions not conducive to health, even if those exposures affect the health of some people more than others, that would be a concern.

## 14. Duty to encourage school attendance

### Articulated in

CRC Article 28, 1(e)

"[States Parties shall] Take measures to encourage regular attendance at schools."

### What this right entails

If states are enjoined to take measures "to encourage regular attendance at schools," it follows that they are also required, *a fortiori*, to refrain from taking measures that make it difficult or impossible for students to attend school.

### Reasons for concern

- Will aerial sprays prevent any students from attending school or being transported to school due to their need to avoid spray exposures?
- Will students be exposed to aerial sprays, drift or residues while waiting for school buses?
- Will schools located near aerial spray zones be affected enough that some students are unable to attend or remain in school?

## 15. Right to education

### Articulated in

CESCR Article 13 (section 1)

"States Parties to the present Covenant recognize the right of everyone to education."

### Reasons for concern

- See #14 above.

## 16. Right to effective remedy

### Articulated in

CCPR Article 2(3)a

"Each State Party to the present Covenant undertakes: To ensure that any person whose rights or freedoms as herein recognized are violated shall have an effective remedy, notwithstanding that the violation has been committed by persons acting in an official capacity...."

### What this right entails

"The legal obligation to offer restitution for injury is as old as the Code of Hammurabi, the first formal set of laws in history."<sup>12</sup> It is recognized both internationally and domestically that "one of the major, primordial functions of the law is to return the victims of an unjust

act to their previous condition.”<sup>13</sup>

“Effective remedy” means that by judicial action, monetary compensation or some other means any person whose rights have been unjustly violated will be restored as much as possible to their previous condition.

The right to effective remedy would be violated if, despite attempts to stop the spray program using normal governmental methods and channels, the spray program continues.<sup>14</sup>

#### **Reasons for concern**

- The potential for being required to pay monetary compensation should citizens be adversely impacted by aerial sprays, drift or residues would be a concern.

### 17. Right to compensation

#### **Articulated in**

In 1985 the U.N. General Assembly spelled out the nature of indemnification in the Declaration of Basic Principles of Justice for Victims of Crime and Abuses of Power. This declaration insists that “victims are entitled to prompt redress for the harm that they have suffered’ and that offenders should ‘pay fair restitution to victims, their families and dependents.”<sup>15</sup>

#### **What this right entails**

“The basic moral law of every society asserts that a government which wrongly injures its own citizens must make them whole insofar as this is possible.”<sup>16</sup>

#### **Reasons for concern**

- Personal or business economic losses resulting from exposure to aerial sprays, drift or residues would be a concern.
- Any other losses that can be measured in economic terms would be a concern.

### 18. Right to know

#### **Articulated in**

The *Rio Declaration on Environment and Development* establishes citizens’ right to information about environmental toxics to which they may be exposed.

#### *Rio Declaration* Principle 10

“Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available.”

#### *Aarhus Convention* Article 1

“each Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters...”

### **What this right entails**

This is the right of citizens to be provided full information about environmental issues so they can participate knowledgeably in decision-making about that issue. It entails the right to full disclosure of information about ingredients (both active and undisclosed “inert” ingredients), about details of spray plans, planned effectiveness studies, Health Risk Assessments, Environmental Impact Reports, planned health effects monitoring, etc.

### **Reasons for concern**

- Despite manufacturers’ claims that information about undisclosed ingredients is proprietary, precedents are emerging around the world in support of citizens’ right to know the ingredients of chemical products to which they are exposed.
- The fact of spray drift can be significant, particularly with aerial applications. The problem of drift, residues and subsequent vaporization exacerbates human rights concerns primarily because of the larger number of persons who are impacted by sprays and who may be uninformed, unwarned and perhaps unconsenting.

## 19. Right to participation in decision-making in environmental issues

### **Articulated in**

*Rio Declaration Principle 10*  
*Aarhus Convention Article 1*  
(see above)

### **Reasons for concern**

- Have citizens had sufficient opportunity for effective participation in decision-making about the aerial spray program?

## 20. Right to equal protection of the law

### **Articulated in**

*CCPR Article 26*  
“All persons are equal before the law and are entitled without any discrimination to the equal protection of the law. In this respect, the law shall prohibit any discrimination and guarantee to all persons equal and effective protection against discrimination on any ground...”

### **What this right entails**

This means that discrimination against persons and classes is proscribed.

The basic principles of environmental justice require that those communities that are disadvantaged in any way – socially, economically, as a result of discriminatory racial policies, etc, or who simply have less ready access to resources – be accorded the same degree of respect, fair treatment and opportunity for meaningful involvement in decision-making as communities that are more socially or economically advantaged and have greater access to resources. As explained on the Environmental Protection Agency website “Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of...negative environmental consequences.”<sup>17</sup>

### **Reasons for concern**

- Are all communities treated equally in the spray program, regardless of perceived social privilege or socioeconomic status?
- Does the socio-economic makeup of communities appear to be a factor in any decisions made by the spray program?
- Are disadvantaged communities affected any differently than more privileged communities?
- Are communities with different racial compositions affected differently?

## 21. Right to freedom from discrimination due to disability

### **Articulated in**

The Americans With Disabilities Act (US)

### **What this right entails**

The US Department of Justice maintains a website with detailed information about ADA requirements<sup>18</sup>, but in general this law requires that everyone who has, or is perceived to have, a disability not be discriminated against in any way.

A booklet providing an overview of ADA “requirements for ensuring equal opportunity for persons with disabilities in employment, State and local government services, public accommodations, commercial facilities, and transportation,” etc. is available on the ADA website.<sup>19</sup>

### **Reasons for concern**

- Discrimination occurs when any sub-group is disproportionately impacted by a policy or practice and no sufficient accommodations are made for them. Individuals with asthma or other respiratory conditions, chemically sensitive persons, pesticide sensitive persons, people with certain allergies, immunocompromised people, the elderly, the very young, pregnant women,<sup>20</sup> any place-bound persons (in hospitals or elder care facilities, for example) to name a few vulnerable sub-sets of residents, may be reasonably expected to experience more serious adverse effects from aerial spray exposures than the general population.
- Have reasonable accommodations been developed for persons in those groups to help them avoid being unfairly impacted by the sprays?

## 22. Right of experimental subjects to free and informed consent

### **Articulated in**

*Nuremberg Code* Item 1

“The voluntary consent of the human subject is absolutely essential.”

*Nuremberg Code* Item 9

“the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.”

### **What this right entails**

This is the right to be fully informed about an experiment before agreeing to participate, the freedom to choose whether to participate or not, and the freedom to withdraw from the experiment at any time.

The rights of experimental subjects to informed consent and to protection from possible harms, at least as they are expressed in *The Nuremberg Code*, are premised on the acknowledgment that the spray program is experimental in nature, i.e., that the aerial application of these pheromone/pesticide formulations, having not previously been conducted over large urban populations, contains important unknowns and is at least partially experimental.

#### **Reasons for concern**

- Have citizens been provided opportunity to consent or not consent to exposure to aerial sprays, drift and residues?
- Have citizens been provided ways to withdraw themselves or their families from the spray and residue exposures if they do not wish to be exposed?
- Have citizens, particularly those with certain disabilities, been notified about details of aerial sprays and provided alternative places to stay during and shortly after sprays to reduce exposures?

### 23. Right of experimental subjects to be protected from injury, disability or death

#### **Articulated in**

##### *Nuremberg Code* Item 7

“Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.”

#### **What this right entails**

This is the right to be protected from anticipated, remote or unanticipated harms that may possibly result from participation in the experiment.

#### **Reasons for concern**

- Have such protections been provided, particularly for those at increased risk of harm from spray exposure?

### **Potential Liabilities**

Listed below are some potential liabilities the CDFA aerial spray program may incur if it were to implement plans to aerially apply pheromones/pesticides over urban areas.

The potential consequences of governments ignoring human rights norms are not insignificant. Loss of public confidence in government agencies and their processes is not a small thing, even from the perspective of the agency, and even when viewed through the lens of basic practicality. When human rights standards are compromised the consequences can be monumental, costly and long lasting.

If CDFA implemented plans to aerially apply pheromones or pesticides over

urban areas there would be risk of public recognition that, despite awareness of links between pheromone/pesticide exposure and health impacts, and despite awareness of human rights concerns, CDFA did not move to eliminate or significantly modify aerial spray plans.

Greater involvement of human rights organizations such as Human Rights Watch in pesticide activism.

One goal of human rights activism is what they refer to as “the mobilization of shame.” Tools human rights organizations use include, among others, videotaping of actions considered to be human rights violations, and of the persons believed responsible for those actions; public, community-led, trial-like Citizens’ Tribunals with independent judges who weigh, using human rights norms rather than civil law, the justness of a given situation; and public, community-led, Citizens Inquiries which involve oral and written testimony from affected community members before a panel of commissioners.

Potentially costly legal actions brought against CDFA for aerial application of pheromones or pesticides as a violation of human rights; possible legal action re the Americans with Disabilities Act; and possible multiple small claims court actions for economic redress.

Potential litigation through the Inter-American Court of Human Rights, a court of the Organization of American States.

## **Pathways to Reducing Liabilities**

1. The most important step to reduce liabilities would be for CDFA to initiate good faith discussions with the California Alliance to Stop the Spray, with StopTheSpray.org and with other citizen groups concerned about aerial spraying over urban areas, and to postpone aerial spraying until satisfactory agreements can be reached in those discussions.
2. Provide examples of large scale, large sample, well designed population studies undertaken by third parties (i.e., not pesticide manufacturers or agriculture/forestry interests) published in the peer reviewed literature that demonstrate no adverse effects from exposing urban populations to the pesticide product(s) that will be used. Absent such studies, provide examples of any studies published in the peer reviewed literature that demonstrate no adverse effects from exposing urban populations to the pesticide product(s) that will be used. Absent that, provide examples of any studies that show no adverse effects from exposing urban populations to the pesticide product(s) that will be used.
3. Rely as much as possible on non-chemical means of moth control.
4. If some use of chemical pheromones or pesticides were to occur:
  - a. Provide notification by multiple means – signage, email lists, websites, phone calls, etc. – especially to those individuals susceptible to or

concerned about adverse health impacts.

- b. Publicly disclose all ingredients, both active and “inert,” of any formulations that would be applied.
- c. Develop strategies for providing alternative lodging, transportation and services to those who, for reasons of health or health concerns, require that they and their family members not be exposed to the sprays, drift or residues.
- d. Develop strategies for insuring that placebound persons, such as those in daycare facilities, elder care facilities, hospitals, schools, etc, not be required to endure spray exposures if they wish not to.
- e. Develop strategies for insuring that children, because of their greater biological vulnerability to environmental exposures, not be required to endure exposures to the sprays, drift or residues.
- f. Arrange for health effects monitoring studies to be undertaken by the Department of Health or independent third parties. Active (rather than passive) surveillance methodologies should monitor for a range of adverse health effects, both acute and chronic, associated with spray exposures. Representatives from citizen groups should be involved in design of the studies.
- g. Arrange oversight by an external observer, agreed to by both CDFA and citizen environmental organizations, to monitor implementation of eradication efforts.

## Conclusion

This Report provides the California Department of Food and Agriculture a list of international human rights norms that would be of concern should CDFA undertake aerial application of pheromones/pesticides over urban areas of California’s central coast and Bay Area. It also outlines CDFA’s potential liabilities and describes pathways that could be taken to reduce those liabilities.

## **Bibliography**

- Drinan Robert F, *The Mobilization of Shame, A World View of Human Rights*. Yale University Press, 2001.
- Human Rights Watch, Natural Resources Defense Council, *Defending the Earth: Abuses of Human Rights and the Environment*, 1992.
- Kerns, Thomas A, *Environmentally Induced Illnesses: Ethics, Risk Assessment and Human Rights*, McFarland & Company, 2001.
- Mann, Jonathan, Gruskin, Sofia, et al, *Health and Human Rights: A Reader*, Routledge, 1999.
- Passas, Nikos and Goodwin, Neva R. (eds), *It's Legal but It Ain't Right: Harmful Social Consequences of Legal Industries*, University of Michigan Press, 2005.
- Picolotti, Romina and Jorge Daniel Taillant, *Linking Human Rights and the Environment*, University of Arizona Press, 2003.
- The Center for Human Rights and the Environment is headquartered in Córdoba, Argentina. <http://www.cedha.org.ar>

Information about the Inter-American Commission on Human Rights, the Inter-American Court on Human Rights (seated in San José, Costa Rica) and human rights instruments pertinent to American states can be found at <http://www1.umn.edu/humanrts/inter-americansystem.htm>

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<sup>1</sup> Picolotti, Romina and Jorge Daniel Taillant, *Linking Human Rights and the Environment*, University of Arizona Press, 2003, p 123 (emphasis in original).

<sup>2</sup> The *Universal Declaration of Human Rights* was unanimously adopted by the United Nations in 1948.

<sup>3</sup> Signed by the US in 1977, ratified in 1992 and entered into force in 1992, though with reservations on articles 5-7, 10(2,3), 15(1), 19, 20, 27 and 47, and formal understandings on articles 2(1), 4(1), 7, 9(5), 14(3,6), 26. Ratification means that the provisions of this international instrument, aside from the reservations, do have the force of domestic law in the US.

<sup>4</sup> Signed by the US in 1977; not ratified.

<sup>5</sup> Signed by the US in 1995; not ratified. Though the US has not ratified this convention, “One hundred and ninety states have agreed to become parties to the Convention on the Rights of the Child, giving it the distinction of being the most widely ratified treaty in the history of the world.” Lauren, Paul Gordon, *The Evolution of International Human Rights*, University of Pennsylvania Press, Philadelphia, 2d ed, 2003, p 249.

<sup>6</sup> Signed by the US in 1980; not ratified.

<sup>7</sup> 1978

<sup>8</sup> Rights enunciated in the 1947 *Nuremberg Code* are for the protection of individuals being studied in research protocols. If the case can be made that a population is being studied as research subjects – e.g., that persons living and working in the spray zone are being studied for health effects resulting from spray exposures – then provisions of the *Nuremberg Code* would apply to individuals in that population.

<sup>9</sup> Many of the rights listed below have been articulated in several different human rights declarations, conventions or charters, but for simplicity’s sake this Report lists only one or two instruments for each right.

<sup>10</sup> This passage continues: “It found that the determination of whether this violation had occurred in *Lopez-Ostra v. Spain* should be tested by striking a fair balance between the interest of the town’s economic well-being and the applicant’s effective enjoyment of her right to respect for her home and her private and family life. In doing this, the Court applied its “margin of appreciation” doctrine, allowing the State a “certain” discretion in determining the appropriate balance, but finding in this case that the margin of appreciation had been exceeded. It awarded Mrs Lopez-Ostra 4,000,000 pesetas [approximately US\$35,600], plus costs and attorneys’ fees.” Shelton, Dinah, “The Environmental Jurisprudence of International Human Rights Tribunals,” in Picolotti, R and Taillant, JD, 2003, p 15.

<sup>11</sup> See item 21 below on discrimination.

<sup>12</sup> Drinan, Robert F, *The Mobilization of Shame, A World View of Human Rights*. Yale University Press, 2001 p 186.

<sup>13</sup> Drinan RF. 2001. p 170.

<sup>14</sup> In reference to a specific case: “the human right to effective judicial remedy has been violated because despite the riverside communities’ plea to the judicial system, nothing has been done to stop the contamination.” in Picolotti, R and Taillant, JD, 2003, p 146.

<sup>15</sup> Drinan RF. 2001. p 171.

<sup>16</sup> Drinan RF. 2001. p 187.

<sup>17</sup> US EPA’s definition of environmental justice. See <http://www.epa.gov/compliance/resources/faqs/ej/index.html> Quoted in Robert D Bullard, *The Quest for Environmental Justice: Human Rights and the Politics of Pollution*, Sierra Club Books, San Francisco, 2005, p. 4.

<sup>18</sup> <http://www.usdoj.gov/crt/ada/>

<sup>19</sup> <http://www.usdoj.gov/crt/ada/publicat.htm#Anchor-ADA-44867>

<sup>20</sup> In this regard, see provisions in the *Convention on the Elimination of All Forms of Discrimination against Women*.