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1 UNITED STATES DISTRICT COURT  
2 FOR THE NORTHERN DISTRICT OF CALIFORNIA  
3 SAN FRANCISCO DIVISION

3 PESTICIDE ACTION NETWORK NORTH )  
4 AMERICA, UNITED FARM WORKERS, ) Case No. \_\_\_\_\_  
5 NATURAL RESOURCES DEFENSE COUNCIL, )  
6 TEAMSTERS LOCAL 890, BEYOND )  
7 PESTICIDES, PINEROS Y CAMPESINOS ) COMPLAINT FOR DECLARATORY  
8 UNIDOS DEL NOROESTE, CENTER FOR ) JUDGMENT AND INJUNCTIVE  
9 ENVIRONMENTAL HEALTH, FARM LABOR ) RELIEF  
10 ORGANIZING COMMITTEE, AFL-CIO, and )  
11 ALASKA COMMUNITY ACTION ON TOXICS, )  
12 )  
13 Plaintiffs, )  
14 )  
15 v. )  
16 )  
17 UNITED STATES ENVIRONMENTAL )  
18 PROTECTION AGENCY, )  
19 )  
20 Defendant. )  
21 )  
22 )  
23 )  
24 )  
25 )  
26 )  
27 )  
28 )

1           1.       This is an action for declaratory judgment and injunctive relief focused on the  
2 inherently dangerous pesticide endosulfan. It arises under and asserts violations of the Federal  
3 Insecticide, Fungicide, and Rodenticide Act (“FIFRA”), 7 U.S.C. §§ 136-136y, and the  
4 Endangered Species Act (“ESA”), 16 U.S.C. §§ 1531-1544.

5           2.       Endosulfan is a toxic, persistent, and bioaccumulative organochlorine insecticide  
6 that is banned in many parts of the world but is still registered for use on farms across the United  
7 States. On July 31, 2002, the United States Environmental Protection Agency (“EPA”)  
8 determined that many uses of endosulfan were eligible for reregistration under FIFRA, even  
9 though EPA’s limited analysis of the risks and benefits of endosulfan revealed that endosulfan  
10 uses result in severe risks to both humans and the environment and only marginal benefits to  
11 growers.

12           3.       In making this reregistration determination, EPA failed to consider critical factors  
13 relating to endosulfan’s registration eligibility, including the risks to children and bystanders  
14 from endosulfan in the ambient air and the endocrine-disrupting properties of the pesticide. EPA  
15 confirmed that endosulfan travels far distances from application sites and is detected in remote  
16 areas such as the Arctic and national parks; it bioaccumulates in food chains and poisons  
17 wildlife; and it threatens the health of farmworkers who mix, load, and apply endosulfan for  
18 agricultural purposes and who enter fields following application.

19           4.       This action seeks a declaration that EPA acted arbitrarily, capriciously, and in  
20 violation of FIFRA in reregistering and maintaining the registrations for endosulfan in light of  
21 the severe risks posed by endosulfan, the minimal benefits associated with the pesticide, and the  
22 omissions in EPA’s risk and benefit assessments. Plaintiffs seek an injunction that (1) requires  
23 EPA to make a new reregistration eligibility decision for endosulfan based on unreasonable  
24 adverse effects findings and risk-benefit analyses that fully incorporate all health, environmental,  
25 economic, and social risks and benefits of each endosulfan use; (2) prohibits EPA from  
26 reregistering uses of endosulfan unless the pesticide registrants prove that the benefits of the  
27 endosulfan use outweigh the specific risks associated with that use; and (3) imposes interim  
28

1 protective measures to prevent harm to children, farmworkers, and bystanders in agricultural  
2 communities near areas where endosulfan is used until EPA brings its endosulfan registration  
3 into compliance with the law.

4 5. Additionally, EPA did not initiate and complete ESA section 7(a)(2) consultations  
5 with the United States Fish and Wildlife Service (“FWS”) and the National Marine Fisheries  
6 Service (“NMFS”) (collectively “the Services”) on its endosulfan reregistration decision, or its  
7 subsequent maintenance of the endosulfan registrations, to ensure that these registrations will not  
8 jeopardize the survival and recovery of threatened and endangered species and will not destroy  
9 or adversely modify their designated critical habitat. This action seeks a declaration that EPA  
10 has violated ESA section 7(a)(2) by reregistering and allowing continued use of endosulfan  
11 without completing consultations with the Services and without ensuring that the registered  
12 endosulfan uses will not jeopardize listed species and will not destroy or adversely modify their  
13 designated critical habitat. Plaintiffs seek an order (1) compelling EPA to initiate consultations  
14 with the Services regarding the effects of endosulfan on threatened and endangered species that  
15 may be affected by the pesticide; and (2) granting interim protective measures to prevent harm to  
16 listed species and their designated critical habitat until the consultation process is complete and  
17 EPA brings the endosulfan registrations into compliance with the ESA.

#### 18 JURISDICTION, VENUE, AND INTRADISTRICT ASSIGNMENT

19 6. This action is brought pursuant to section 16(a) of FIFRA, 7 U.S.C. § 136n(a), and  
20 section 11(g)(1) of the ESA, 16 U.S.C. § 1540(g)(1). This Court has jurisdiction pursuant to  
21 7 U.S.C. § 136n(a), 16 U.S.C. § 1540(g)(1), and 28 U.S.C. § 1331. As required by the ESA  
22 citizen suit provision, plaintiffs Beyond Pesticides and Natural Resources Defense Council  
23 provided a 60-day notice of intent to sue on May 13, 2008, to the Services and defendant EPA.  
24 A copy of the 60-day notice is appended as Exhibit A.

25 7. Venue is properly vested in this Court under 28 U.S.C. § 1391(e) and 16 U.S.C.  
26 § 1540(g)(3) as a number of the plaintiffs reside in this district and many of the consequences of  
27

1 the defendant's violations of the law giving rise to the claims occur in this district.

2 8. This case is properly assigned to the San Francisco/Oakland Division under Civil  
3 L.R. 3-2(c) because at least two of the plaintiffs are located in San Francisco County.

4 PARTIES

5 9. The plaintiffs in this action are:

6 A. Pesticide Action Network North America ("PANNA"), a San Francisco-based  
7 non-profit organization that serves as an independent regional center for Pesticide Action  
8 Network International, a coalition of over 600 public interest organizations in more than 90  
9 countries. For more than 20 years, PANNA has worked to replace hazardous and unnecessary  
10 pesticide uses with ecologically sound pest management across North America. PANNA  
11 provides scientific expertise, public education, access to pesticide data and analysis, policy  
12 development, and other support to its approximately 225 member organizations. PANNA has  
13 approximately 2,700 individual members nationwide and approximately 90 organizational  
14 members in California alone. PANNA's U.S. membership includes a number of groups who  
15 directly represent or advocate on behalf of farmworkers and whose membership includes  
16 farmworkers and persons living on or near farms. PANNA and its foreign affiliates have long  
17 campaigned for more stringent regulation of endosulfan. For example, in February 2008,  
18 PANNA submitted a petition and a technical comment letter calling for EPA to cancel all  
19 remaining uses of endosulfan and revoke all food residue tolerances. PANNA also submitted  
20 comments on EPA's 2001 Human Health Risk Assessment of Endosulfan. PANNA and its  
21 foreign affiliates played a role in getting endosulfan banned in the European Union and many  
22 other nations and are participating in efforts to get endosulfan listed as a persistent organic  
23 pollutant under the Stockholm Convention.

24 B. United Farm Workers ("UFW"), the nation's oldest and largest farmworker  
25 membership organization. UFW is headquartered in California and serves farmworkers in  
26 offices all across the country including offices in Salinas and Santa Rosa, California. UFW has  
27

1 represented farm workers for more than 40 years and currently has more than 27,000 members,  
2 many of whom are migrant and seasonal farmworkers. UFW's mission is to protect and expand  
3 farmworkers' labor rights, including rights pertaining to health and safety issues. UFW works to  
4 protect the health and safety of farmworkers from occupational injuries, including injuries  
5 caused by exposure to endosulfan and other pesticides.

6 C. Natural Resources Defense Council ("NRDC"), a national environmental  
7 advocacy group organized as a New York not-for-profit membership corporation. NRDC is  
8 registered to do business in California and maintains an office in San Francisco. NRDC has over  
9 420,000 members nationwide. NRDC and its members work to ensure that the health of humans,  
10 wildlife, and ecosystems is not diminished by the use of toxic pesticides. In January 2003,  
11 NRDC submitted comments to EPA critiquing the 2002 reregistration eligibility decision for  
12 endosulfan. In February 2008, NRDC submitted comments on EPA's 2007 updated human  
13 health and ecological effects risk assessments for endosulfan and petitioned EPA to cancel all  
14 uses of endosulfan and revoke all tolerances.

15 D. Teamsters Local 890, a union founded in 1943 that represents approximately  
16 10,000 workers in California and Arizona, including 2,000 agricultural workers in Salinas  
17 Valley, Oxnard area, Huron area, and Imperial Valley in California, as well as the Yuma area of  
18 Arizona. The Union negotiates contracts to improve the members' wages and working  
19 conditions and works to protect its members from pesticide exposures and provide health care to  
20 farm workers and their families. Local 890's members include workers who have harvested and  
21 will continue to harvest vegetables treated with endosulfan. Local 890's members and their  
22 families also live and go to school in areas where endosulfan drifts and settles.

23 E. Beyond Pesticides, a non-profit membership organization that serves a nationwide  
24 network of individuals and groups working to increase the safe use of pesticides and reduce or  
25 end the use of dangerous chemicals such as endosulfan. Beyond Pesticides is based in  
26 Washington, D.C., and has more than 2,000 individual and organizational members in California  
27 and other states. Beyond Pesticides advocates on behalf of farmworkers, individuals, and  
28

1 communities exposed to pesticides such as endosulfan. Beyond Pesticides also seeks to protect  
2 wildlife and ecosystems from the harmful effects of endosulfan and other pesticides. Beyond  
3 Pesticides' primary goal is to assist individuals and organizations in identifying the hazards of  
4 pesticides, providing information on safer alternatives, and promoting policy changes that  
5 increase the protections to humans and the environment from pesticides.

6 F. Pineros y Campesinos Unidos del Noroeste (Northwest Treeplanters and  
7 Farmworkers United or "PCUN"), based in Woodburn, Oregon, the state's only union of  
8 farmworkers, nursery, and reforestation workers. Its mission is to establish better working and  
9 living conditions for its members, who work on crops treated with endosulfan, and live in  
10 communities where this pesticide drifts and is tracked indoors following application.

11 G. Center for Environmental Health ("CEH"), a non-profit organization based in  
12 Oakland, California. CEH works to protect low-income communities and communities of color  
13 from exposure to pesticides and other toxic chemicals. In furtherance of this mission, CEH  
14 promotes sustainable food production practices and works to eliminate exposure to toxic  
15 substances such as endosulfan. CEH is an organizational member of PANNA and is the  
16 coordinator of "Californians for a Healthy and Green Economy," a statewide chemicals policy  
17 reform coalition that promotes policies and legislation to require chemical companies to prove  
18 the safety of their products before they are allowed on the market. In 2007, CEH supported  
19 comments submitted to EPA on the agency's list of 73 pesticides, including endosulfan, that  
20 EPA had designated for screening as endocrine disruptors.

21 H. Farm Labor Organizing Committee, AFL-CIO ("FLOC"), a national union that  
22 represents migrant and seasonal farmworkers. It was founded in 1968 and is based in Toledo,  
23 Ohio. FLOC's mission is to organize farmworkers so that they can secure more power to  
24 improve their working conditions, including reducing their exposure to pesticides. FLOC  
25 currently has approximately 12,000 members in Ohio, Michigan, North Carolina, and Virginia.  
26 FLOC members work with many crops that are registered to receive endosulfan treatments,  
27 including tomatoes, cucumbers, potatoes, peppers, strawberries, blueberries, apples, and tobacco.

1 I. Alaska Community Action on Toxics (“ACAT”), an Alaska-based environmental  
2 health and justice organization founded in 1997, with 375 supporters located throughout the State  
3 of Alaska and a contact list of over 3,000. ACAT’s mission is to assure clean air, clean water,  
4 and toxic-free foods for the people of Alaska by advocating for environmental and community  
5 health. In furtherance of this mission, ACAT provides technical assistance and support to  
6 individuals, tribes, and other communities relating to the health and environmental impacts of  
7 toxic contaminants such as endosulfan, which affects the waters, traditional foods, health, and  
8 cultures of the indigenous people throughout Alaska. ACAT also works to motivate public  
9 support to instigate local, national, and international policies to protect the health of people,  
10 wildlife, and the environment from environmental contaminants. ACAT submitted public  
11 comments to the EPA on the updated risk assessment for endosulfan in 2008, particularly  
12 focusing on the adverse effects of endosulfan on Arctic ecosystems and peoples.

13 10. Plaintiffs have been and will continue to be injured when they and their members  
14 mix, load, and apply endosulfan for agricultural purposes; prune, thin, or harvest crops that  
15 contain residues of endosulfan; and work or live in areas where endosulfan drifts and settles.  
16 Every year, plaintiffs and their members are exposed to endosulfan at levels that may cause  
17 poisoning. The continued exposure of the plaintiffs’ members to the harmful effects of  
18 endosulfan are a direct result of EPA’s decisions to reregister endosulfan uses.

19 11. Plaintiffs NRDC and Beyond Pesticides and their members live, use, and recreate  
20 in areas near where endosulfan is applied or where endosulfan has traveled. NRDC, Beyond  
21 Pesticides, and their members have professional, economic, aesthetic, and recreational interests  
22 that have been and will continue to be injured by the reregistration of endosulfan uses and the  
23 impacts that this pesticide has and will continue to have on beneficial insects and threatened and  
24 endangered species.

25 12. The past, present, and future enjoyment of these interests by plaintiffs and their  
26 members have been, are being, and will continue to be irreparably harmed by EPA’s disregard of  
27 its statutory duties, which results in unlawful injuries to farmworkers, children and other  
28



1 bystanders, and the environment.

2 13. The aesthetic, conservation, recreational, commercial, and scientific interests of  
3 plaintiffs and their members in minimizing harm to people and the environment from the use of  
4 endosulfan, as well as their interest in ensuring compliance with environmental law by federal  
5 agencies, have been, are being, and, unless the relief prayed for is granted, will continue to be  
6 directly and adversely affected by the failure of defendants to comply with the law.

7 14. The defendant in this action is the United States Environmental Protection  
8 Agency, an agency of the United States charged with registering and reregistering pesticides  
9 under FIFRA and with ensuring that the authorized pesticide uses will not cause unreasonable  
10 adverse effects on the environment. EPA is also charged with ensuring, through consultation  
11 with the Services, that its pesticide registrations will not jeopardize the survival and recovery of  
12 listed species or destroy or adversely modify their designated critical habitat.

### 13 BACKGROUND

#### 14 I. STATUTORY FRAMEWORK FOR REGISTERING AND REREGISTERING 15 PESTICIDES

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

17 15. FIFRA establishes a registration scheme for pesticides. Under FIFRA, a pesticide  
18 may generally not be sold or used in the United States unless it has an EPA registration for a  
19 specified use. 7 U.S.C. § 136a(a). To register or reregister a pesticide, EPA must determine  
20 that:

21 (A) its composition is such as to warrant the proposed claims for it;

22 (B) its labeling and other material required to be submitted comply with the  
23 requirements of this Act;

24 (C) it will perform its intended function without unreasonable adverse effects on the  
25 environment; and

26 (D) when used in accordance with widespread and commonly recognized practice it  
27 will not generally cause unreasonable adverse effects on the environment.

1 Id. § 136a(c)(5).

2  
3 16. FIFRA defines “unreasonable adverse effects on the environment” to mean “any  
4 unreasonable risk to man or the environment, taking into account the economic, social, and  
5 environmental costs and benefits of the use of any pesticide . . . .” Id. § 136(bb). In order for  
6 EPA to register or reregister a pesticide use, it must find that the use will not pose any  
7 unreasonable adverse effects under this standard because the benefits of the pesticide uses  
8 outweigh the risks.

9 17. FIFRA also defines “unreasonable adverse effects on the environment” to include  
10 any human dietary risk that is not “safe” under the Federal Food Drug and Cosmetic Act  
11 (“FFDCA”), 21 U.S.C. §§ 301-394, as amended by the Food Quality Protection Act (“FQPA”),  
12 Pub. L. No. 104-170, 110 Stat. 1489 (1996). 7 U.S.C § 136(bb). The FFDCA, as amended,  
13 defines “safe” as “a reasonable certainty that no harm will result from aggregate exposure to the  
14 pesticide residue, including all anticipated dietary exposures and all other exposures for which  
15 there is reliable information.” 21 U.S.C. §§ 346a(b)(2)(A)(i)-(ii).

16 18. The culmination of the registration process is EPA’s approval of both a  
17 registration and a label for the particular pesticide uses. FIFRA makes it unlawful to use a  
18 pesticide in a manner inconsistent with the label, 7 U.S.C. § 136j(2)(G), or to make any claims  
19 that differ substantially from the label, id. § 136j(1)(B).

20 19. EPA has the authority to cancel a pesticide registration whenever the “pesticide or  
21 its labeling or other material required to be submitted does not comply with the provisions of this  
22 Act or, when used in accordance with widespread and commonly recognized practice, generally  
23 causes unreasonable adverse effects on the environment.” Id. § 136d(b).

24 20. Under FIFRA’s risk-benefit standard, EPA cannot allow pesticide uses that result  
25 in human or ecological risks of concern to persist unless the pesticide registrant proves that,  
26 considering all risks and benefits, the benefits of the pesticide use outweigh the risks. Id.  
27 §§ 136a(c)(5)(C)-(D).

1           21.     EPA has no standard regulation or policy establishing a uniform process for  
2 assessing the benefits of pesticide uses that pose risks of concern to humans or wildlife. Expert  
3 bodies, such as the National Academy of Sciences, have recommended that EPA develop such a  
4 policy to avoid arbitrary and unprincipled risk-benefit decisionmaking under FIFRA. In the  
5 absence of such a regulation or policy, EPA staff compiles information on the risks and benefits  
6 of pesticides on an *ad hoc* basis.

7           B.     Endangered Species Act Mandates

8           22.     Section 7(a)(2) of the ESA requires federal agencies to “insure that any action  
9 authorized, funded, or carried out by such agency is not likely to jeopardize the continued  
10 existence of any endangered species or threatened species or result in the destruction or adverse  
11 modification of habitat of such species which is determined . . . to be critical.” 16 U.S.C.  
12 § 1536(a)(2).

13           23.     Section 7 establishes an interagency consultation process to assist federal agencies  
14 in complying with their duty to ensure against jeopardy to listed species or destruction or adverse  
15 modification of critical habitat. An agency must initiate consultation with NMFS or FWS under  
16 section 7 whenever it takes an action that “may affect” a listed species. 50 C.F.R. § 402.14(a).  
17 The threshold for a “may affect” determination and required ESA section 7 consultation is low.  
18 See 51 Fed. Reg. 19,926, 19,949 (June 3, 1986) (“Any possible effect, whether beneficial,  
19 benign, adverse or of an undetermined character, triggers the formal consultation requirement.”).

20           24.     As a result of consultation, the federal agency will obtain either a written  
21 concurrence letter from NMFS or FWS that the proposed action is “not likely to adversely  
22 affect” listed species or their habitat, 50 C.F.R. §§ 402.13, 402.14(b)(1), or a biological opinion  
23 evaluating the effects of the federal action on listed species and their critical habitat. Id.  
24 § 402.14(a). If NMFS or FWS concludes that a proposed action is likely to jeopardize a listed  
25 species or result in adverse modification of its critical habitat, NMFS or FWS must propose a  
26 reasonable and prudent alternative, if available, that will mitigate the proposed action so as to  
27

1 avoid jeopardy and/or adverse modification of critical habitat. 16 U.S.C. § 1536(b)(3).

2 25. Separately, ESA section 7(d) prohibits federal agencies, after the initiation of  
3 consultation under section 7(a)(2), from making any irreversible or irretrievable commitment of  
4 resources if doing so would foreclose the implementation of reasonable and prudent alternatives.  
5 Id. § 1536(d).

6 26. Federal agencies and the Services must use the best available science and  
7 commercial data in their section 7(a)(2) consultations. Id. § 1536(a)(2).

## 8 II. ENDOSULFAN

### 9 A. History and Usage

10 27. Endosulfan was first registered in 1954 and is one of the few organochlorine  
11 pesticides still registered for use in the United States; EPA has cancelled most other  
12 organochlorines, such as DDT, mirex, aldrin, and dieldrin, due to their extreme toxicity,  
13 mobility, and persistence in the environment. EPA estimates that 1.38 million pounds of  
14 endosulfan active ingredient were used annually in the United States between 1987 and 1998.  
15 Endosulfan Reregistration Eligibility Decision (“RED”) at v, 6.

16 28. Endosulfan is currently banned in the European Union and over 20 nations  
17 including Bahrain, Belize, Cambodia, Columbia, Kuwait, Oman, Pakistan, the Philippines,  
18 Qatar, Saudi Arabia, Singapore, St. Lucia, Sri Lanka, Syria, Tonga, and the United Arab  
19 Emirates. Endosulfan is currently proposed to be added to the Stockholm Convention’s list of  
20 persistent organic pollutants, which would prohibit its use in all 131 nations that are parties to the  
21 treaty (the United States is not a party to the Stockholm Convention).

22 29. In the late 1980s, EPA initiated consultation with FWS pursuant to section 7(a)(2)  
23 of the ESA on the effects of the then-registered endosulfan uses on threatened and endangered  
24 species. In a 1989 biological opinion, FWS found that registered endosulfan uses jeopardized  
25 the survival and recovery of 41 aquatic species and two terrestrial species and prescribed  
26 mitigation measures to avoid such jeopardy. See Endosulfan RED at 33-34. On information and  
27

1 belief, EPA has never implemented the mitigations prescribed in the 1989 biological opinion,  
2 despite recognizing that new circumstances, including new ESA listings and the completion of  
3 the endosulfan reregistration eligibility decision, required reconsideration of the risks endosulfan  
4 poses to threatened and endangered species. See Endosulfan RED at 33.

5 30. On February 19, 2008, plaintiffs PANNA and NRDC submitted petitions to EPA,  
6 signed by over 13,000 individuals, calling for EPA to cancel all remaining registrations of  
7 endosulfan and revoke all endosulfan food residue tolerances. Along with the petitions, the  
8 organizations submitted technical comments critiquing EPA's 2007 updated human health and  
9 ecological effects risk assessments for endosulfan. As of the date of this complaint, EPA has not  
10 responded to PANNA and NRDC's endosulfan petition.

11 B. Toxicity and Environmental Fate

12 31. Endosulfan is currently classified in the group of pesticides with the greatest  
13 toxicity (toxicity class I). Exposure to endosulfan may cause hyperactivity, tremors,  
14 convulsions, lack of coordination, staggering, difficulty breathing, nausea, diarrhea,  
15 unconsciousness, permanent brain damage, deficits in learning and memory, coma, and death.  
16 Exposure to endosulfan is also believed to cause endocrine disruption, which results in  
17 developmental and reproductive effects including testicular atrophy, parathyroid hyperplasia, and  
18 increased pituitary and uterine weight. Endosulfan RED at 11. A peer reviewed scientific study  
19 found an association between pre-natal endosulfan exposures and increased incidence of autism  
20 spectrum disorder.

21 32. Endosulfan is a persistent and bioaccumulative toxin that contaminates air,  
22 surface water, ground water, soil, and food chains. Endosulfan is highly mobile in the  
23 atmosphere and has been detected in areas far from use sites, including national parks and the  
24 Arctic. It has been detected in the tissues of numerous animal species, including the threatened  
25 polar bear, endangered California red-legged frog, minke whale, and northern fulmar (an Arctic  
26 seabird). It has also been detected in the tissues and breast milk of pregnant mothers; drinking  
27

1 water; and ambient air at schools, playgrounds, and other sites where children are likely to be  
2 exposed to the poison.

3 C. EPA's Reregistration Eligibility Decision

4 33. While the rest of the world was working to ban endosulfan, on July 31, 2002,  
5 EPA completed its reregistration eligibility decision for endosulfan and decided to allow  
6 continued use of endosulfan on a wide variety of crops including alfalfa, almonds, apples,  
7 apricots, blueberries, broccoli, Brussels sprouts, cabbage, carrots, cauliflower, celery, cherries,  
8 cotton, cucumbers, eggplant, filbert nuts, lettuce, macadamia nuts, melons, nectarines, non-  
9 bearing citrus, peaches, pears, peppers, pineapples, plums/prunes, potatoes, squash, strawberries,  
10 sweet corn, sweet potatoes, tobacco, tomatoes, and walnuts. Endosulfan RED at 57-72.

11 34. In the Endosulfan decision, EPA identified farmworker "risks of concern"  
12 resulting from endosulfan uses. EPA prescribed mitigation to reduce these farmworker risks,  
13 including use of personal protective equipment (such as chemical resistant clothing and  
14 respirators), use of engineering controls (such as closed pesticide mixing, loading, and  
15 application systems designed to reduce contact with the poisons), use restrictions, and reductions  
16 in maximum application rates. EPA determined that implementation of such mitigation would  
17 eliminate most endosulfan risks of concern to farmworkers. Endosulfan RED at 57-72.

18 35. However, EPA failed to evaluate other significant risks from endosulfan. For  
19 example, EPA ignored well-documented evidence of child and bystander exposures to  
20 endosulfan that drifts from fields into homes, schools, playgrounds, and other areas. EPA also  
21 acknowledged that "[e]ndosulfan is a potential endocrine disruptor," Endosulfan RED at 11, but  
22 failed to include endocrine disruption in its risk assessments or take the steps necessary to protect  
23 children, bystanders, and wildlife from the impacts associated with endocrine disruption. See  
24 Endosulfan RED at 48-49. Both FIFRA and the FFDCA require EPA to assess such exposures;  
25 however, EPA did not examine such exposures under either FIFRA's "unreasonable adverse  
26 effects" standard or the FFDCA's "reasonable certainty of no harm" standard.

1           36.     EPA also determined that several endosulfan uses present substantial “risks of  
2 concern” to birds, mammals, aquatic organisms, and endangered and threatened species.  
3 Endosulfan RED at 28-35. EPA noted particular concern regarding the impacts of endosulfan on  
4 amphibian species listed or proposed for listing under the ESA. Endosulfan RED at 32. EPA  
5 concluded that “all currently registered uses of endosulfan” posed risks of concern “to all taxa fo  
6 [sic] endangered/threatened animals – birds, mammals, aquatic invertebrates, amphibians,  
7 reptiles and terrestrial . . . .” Endosulfan RED at 33. And EPA recognized that its ecological risk  
8 assessments likely underestimated the risks of endosulfan because its “[e]xposure estimates for  
9 terrestrial animals represent parent endosulfan only and do not take into account residues from  
10 the more persistent and assumed to be equally toxic endosulfan sulfate,” which is an  
11 environmental degradate of endosulfan. Endosulfan RED at 28.

12           37.     In response to the acknowledged wildlife risks, EPA prescribed mitigation  
13 measures, including application buffers, reductions in application rates, and deletion of certain  
14 uses, but never assessed whether these measures would reduce some or all of the ecological risks  
15 posed by endosulfan uses. Moreover, EPA never consulted with the Services to determine  
16 whether, with the prescribed mitigation, endosulfan uses would cause jeopardy to the survival  
17 and recovery of threatened and endangered species or adverse modification of their critical  
18 habitat.

19           38.     While EPA found that endosulfan uses presented considerable risks to humans  
20 and the environment, it also concluded that such uses provide few, if any, benefits to growers.  
21 For example, for some of the most significant endosulfan uses (cotton, tobacco, and Florida  
22 tomatoes), EPA determined that it “does not believe that the impacts of a cancellation of  
23 endosulfan on these crops would result in important impacts” and further recognized that “in all  
24 cases, alternatives exist that could effectively replace endosulfan, usually at fairly moderate  
25 increases in cost.” 7/12/2002 BEAD Assessment at 2. EPA has provided no rationale that  
26 justifies its decision to reregister dangerous endosulfan uses that provide, at best, marginal  
27 benefits to growers.

CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF

Violation of FIFRA:

Failure to Consider All Factors Necessary to Evaluate “Unreasonable Adverse Effects”  
From Reregistering Endosulfan

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39. In order to register or reregister a pesticide use, EPA must determine that the use “will not generally cause unreasonable adverse effects on the environment.” 7 U.S.C. §§ 136a(c)(5). FIFRA defines “unreasonable adverse effects on the environment” to mean “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide . . . .” *Id.* § 136(bb). In order to satisfy this standard, EPA must consider all relevant health, environmental, economic, and social risks and benefits of the pesticide use and determine that the benefits outweigh the risks. The pesticide registrant bears the burden of proving that the benefits of a pesticide use outweigh the risks.

40. In determining that endosulfan uses are eligible for reregistration under FIFRA, EPA failed to conduct a complete assessment of the risks and benefits of endosulfan. The critical omissions in EPA’s endosulfan assessments include but are not limited to EPA’s failure to consider and adequately assess: (a) the risks to children and bystanders resulting from endosulfan that drifts from fields following application, and (b) the endocrine-disrupting effects of endosulfan on humans and wildlife.

41. Because EPA failed to consider and adequately assess many important factors bearing on the risks and benefits of endosulfan, including but not limited to those listed above, EPA lacked a basis for determining that the benefits of endosulfan uses outweigh the risks. By failing to conduct a complete risk-benefit assessment that considered all important factors relevant to endosulfan’s reregistration eligibility, EPA’s decision that endosulfan is eligible for reregistration was arbitrary, capricious, and contrary to FIFRA.



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SECOND CLAIM FOR RELIEF

Violation of FIFRA:

Failure to Rationally Balance Risks and Benefits of Endosulfan Reregistration

42. FIFRA defines “unreasonable adverse effects on the environment” to mean “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide . . . .” Id. § 136(bb). In order to satisfy this standard, EPA must consider all relevant health, environmental, economic, and social risks and benefits of the pesticide use and determine that the benefits outweigh the risks. The pesticide registrant bears the burden of proving that the benefits of a pesticide use outweigh the risks.

43. Despite the flaws in EPA’s endosulfan risk and benefits assessments, EPA admitted that many endosulfan uses pose substantial risks – both in amount of risk and the type of risk – to humans and the environment and provide only marginal benefits to growers. EPA proffered no rationale for how these marginal benefits outweigh the substantial risks posed by endosulfan. EPA’s failure to articulate any rational connection between its risk and benefit findings and its ultimate decision that endosulfan was eligible for reregistration was arbitrary, capricious, and contrary to FIFRA.

THIRD CLAIM FOR RELIEF

Violation of the Endangered Species Act:

Failure to Consult on Impacts to Threatened and Endangered Species  
From Reregistration of Endosulfan

44. Under ESA section 7(a)(2), “[e]ach federal agency shall ... insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species.” 16 U.S.C. § 1536(a)(2).

45. To ensure that the substantive mandate in section 7(a)(2) is fulfilled, the ESA requires federal agencies to consult with the Services whenever a federal action “may affect” a listed species or designated critical habitat. 50 C.F.R. § 402.14(a). The threshold for a “may affect” determination and the required ESA section 7(a)(2) consultation is low. See 51 Fed. Reg.

1 19926, 19949 (June 3, 1986) (“Any possible effect, whether beneficial, benign, adverse or of an  
2 undetermined character, triggers the formal consultation requirement.”).

3 46. In its reregistration eligibility determination for endosulfan, EPA found that uses  
4 of the pesticide pose “risks of concern” to threatened and endangered species. EPA’s findings of  
5 “risks of concern” for threatened and endangered species equate with “may affect” findings that  
6 trigger the ESA consultation mandate. EPA has never consulted under ESA section 7(a)(2) with  
7 the Services on the 2002 decision to reregister endosulfan uses or the subsequent maintenance of  
8 that registration. This failure to consult on an action that “may affect” listed species violates the  
9 Endangered Species Act.

10 PRAYER FOR RELIEF

11 WHEREFORE, plaintiffs respectfully request that the Court:

12 A. Adjudge and declare that EPA acted arbitrarily, capriciously, and contrary to  
13 FIFRA in reregistering uses of endosulfan;

14 B. Adjudge and declare that EPA violated section 7(a)(2) of the ESA by reregistering  
15 endosulfan uses and maintaining endosulfan reregistrations without consulting with the Services  
16 and without ensuring that the reregistered uses will not jeopardize the survival and recovery of  
17 threatened and endangered species or destroy or adversely modify their designated critical  
18 habitat;

19 C. Order EPA to either cancel endosulfan or make a new reregistration eligibility  
20 decision for endosulfan on an expeditious basis in which EPA: (1) makes unreasonable adverse  
21 effects determinations based on full consideration and balancing of environmental, health,  
22 economic, and social risks and benefits from endosulfan uses, including all risks to children and  
23 other bystanders from all potential exposure routes; (2) reregisters an endosulfan use only when  
24 the pesticide registrants have proved that the health, environmental, economic, and social  
25 benefits outweigh the risks; and (3) ensures, based on completed section 7(a)(2) consultations,  
26 that the reregistered endosulfan uses will not jeopardize the survival and recovery of threatened  
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1 and endangered species or destroy or adversely modify their critical habitat;

2 D. Order EPA to consult with the Services pursuant to section 7(a)(2) of the ESA on  
3 any endosulfan uses that “may affect” a listed species, and ensure, based on the consultations,  
4 that the endosulfan registrations will not jeopardize the survival and recovery of listed species or  
5 adversely modify their critical habitat;

6 E. Order interim protective measures to prevent harm to children and other  
7 bystanders while EPA makes new reregistration decisions for endosulfan;

8 F. Order interim protective measures to prevent harm to threatened and endangered  
9 species and their designated critical habitat until the ESA section 7(a)(2) consultation process is  
10 complete and EPA has brought endosulfan registration into compliance with section 7 of the  
11 ESA;

12 G. Award plaintiffs PANNA, UFW, NRDC, Teamsters Local 890, Beyond  
13 Pesticides, PCUN, CEH, and FLOC their reasonable fees, expenses, costs, and disbursements,  
14 including attorneys’ fees associated with this litigation under the Equal Access to Justice Act, 28  
15 U.S.C. § 2412;

16 H. Award NRDC and Beyond Pesticides their reasonable fees, expenses, costs, and  
17 disbursements, including attorneys’ fees associated with this litigation under the citizen suit  
18 provision of the ESA, 16 U.S.C. § 1540(g)(4);

19 I. Grant plaintiffs such further and additional relief as the Court may deem just and  
20 proper.

1 Respectfully submitted this 24<sup>th</sup> day of July, 2008.  
2  
3

4 \_\_\_\_\_  
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# **EXHIBIT A**



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INTERNATIONAL    JUNEAU, ALASKA    OAKLAND, CALIFORNIA  
SEATTLE, WASHINGTON    TALLAHASSEE, FLORIDA    WASHINGTON, D.C.

May 13, 2008

*Via Certified Mail, Return Receipt Requested*

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U.S. Department of Commerce  
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Dirk Kempthorne  
Secretary of the Interior  
U.S. Department of the Interior  
1849 C Street, N.W.  
Washington, D.C. 20240

Re: Notice of Violation of the Endangered Species Act: Failure to Consult Regarding Impacts of EPA's Reregistration of Endosulfan on Threatened and Endangered Species

Greetings:

On behalf of Beyond Pesticides and Natural Resources Defense Council,<sup>1</sup> we ask that the Environmental Protection Agency ("EPA") take immediate action to remedy its violation of the Endangered Species Act ("ESA"). By reregistering endosulfan, a highly toxic organochlorine pesticide, EPA is in violation of Section 7(a)(2) of the ESA by taking an action that "may affect" ESA-listed species without having first engaged in consultation under the ESA with the U.S. Fish and Wildlife Service ("FWS") and National Marine Fisheries Service ("NMFS")

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<sup>1</sup> A list of these organizations' business addresses is appended.

(collectively “the Services”). 16 U.S.C. § 1536(a)(2). Moreover, allowing endosulfan to be used during consultation constitutes a violation of Section 7(d) of the Act, which prohibits the “irretrievable commitment of resources” pending completion of consultation. 16 U.S.C. § 1536(d). This letter constitutes notice required by Section 11(g) of the ESA, 16 U.S.C. § 1540(g), prior to commencement of legal action.

## BACKGROUND

Endosulfan is an acutely toxic organochlorine insecticide. Used in the United States on tomatoes, cotton and other crops, endosulfan can cause reproductive and developmental damage in both humans and wildlife. Exposure to small amounts of endosulfan can cause central nervous system disorders in wildlife, such as dizziness, breathing difficulties, convulsions, loss of consciousness, and death. Many organochlorine pesticides, including DDT and chlordane, were banned in the 1970’s and early 1980s.

Developed in the early 1950s and first registered by EPA in 1954, by 2000 EPA had cancelled all U.S. home and garden uses of endosulfan. Endosulfan is banned entirely in the European Union and many other countries, including Cambodia, Pakistan, and the Philippines. Endosulfan has been proposed for a global ban under the Stockholm Convention on Persistent Organic Pollutants. In early 2008, a petition signed by more than 13,000 people asked EPA to ban endosulfan in the United States.

Once in the environment, endosulfan is mobile and persistent. As it degrades, it breaks down into endosulfan sulphate and endosulfan diol, both of which are equally toxic and the former even more persistent than endosulfan. Endosulfan has been found in remote areas from the Great Lakes to the Arctic, and the chemical has been detected in polar bears from Svalbard, Norway and the blubber of minke whales. A 2008 report by the National Parks Service found that endosulfan commonly contaminates air, water, plants and fish of U.S. National Parks – most of which are far from areas where endosulfan is used.

Endosulfan is particularly harmful to aquatic ecosystems, as it bioaccumulates in fish. Between 1980 and 1989, endosulfan was responsible for more U.S. fish kills in estuaries and coastal rivers than all other pesticides used at that time. IRED at 34. Indeed, despite the 1991 addition of a 300-foot spray drift buffer around rivers, lakes, and streams, endosulfan has continued to poison water bodies and kill fish and other aquatic life. *Id.* Endosulfan was the most frequently detected insecticide in tadpole and adult frog tissues in a California study, and the higher frequency of occurrence was in the Sierra Nevada mountains east (and upwind) of the Central Valley. *Id.* at 32. EPA has also found that “in any single year there is a 60 to 90% probability that 30-75% of species in surface water adjacent to fields, treated with endosulfan at typical application rates, will experience 50% mortality.” EPA, Biological and Economic Analysis of Endosulfan Benefits on Selected Crops (July 12, 2002).

The Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) prohibits the use of a pesticide in the United States unless EPA has registered the pesticide for a particular use. 7 U.S.C. § 136a(a). EPA may only register a pesticide if it determines that “when used in accordance with widespread and commonly recognized practice,” the pesticide “will not generally cause unreasonable adverse effects on the environment.” *Id.* at § 136a(c)(5); *see also id.* at § 136a-1(a)(2). FIFRA defines “unreasonable adverse effects on the environment” to mean “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide . . . .” *Id.* at § 136(bb).

After registering or reregistering a pesticide use, EPA retains discretionary involvement and control over that registration. EPA has the authority to cancel pesticide registrations whenever “a pesticide or its labeling or other material required to be submitted does not comply with the provisions of [FIFRA], when used in accordance with widespread and commonly recognized practice, generally causes unreasonable adverse effects on the environment.” 7 U.S.C. § 136d(b). EPA must periodically review pesticide registrations, and should strive to complete such reviews every 15 years. *Id.* at § 136a(g)(1).

In November 2002, EPA reregistered endosulfan for use on melons, lettuce, sweet potatoes, tomatoes, cotton, broccoli, cauliflower, nuts, carrots, beans, and peas. Endosulfan Interim Reregistration Eligibility Decision (“IRED”) at 4. In this reregistration, despite finding ecological risks, EPA reduced the protective spray buffer for ground applications to 100 feet between a treated area and water bodies. EPA also required a 30 foot vegetative buffer strip between a treated area and water bodies.

## EPA VIOLATED ESA § 7 BY FAILING TO CONSULT ON THE ENDOSULFAN REREGISTRATION

### *1. Legal framework*

Under ESA § 7(a)(2), “[e]ach federal agency shall ... insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species.” 16 U.S.C. § 1536(a)(2). The obligation to “insure” against a likelihood of jeopardy or adverse modification requires the agencies to give the benefit of the doubt to endangered species and to place the burden of risk and uncertainty on the proposed action. *See Sierra Club v. Marsh*, 816 F.2d 1376, 1386 (9<sup>th</sup> Cir. 1987). The substantive duty imposed by § 7(a)(2) is constant, relieved only by an exemption from the Endangered Species Committee. 16 U.S.C. § 1536(h); *Conner v. Burford*, 848 F.2d 1441, 1452 n.26 (9<sup>th</sup> Cir. 1988).

Section 7 establishes an interagency consultation process to assist federal agencies in complying with their duty to ensure against jeopardy to listed species or destruction or adverse modification of critical habitat. An agency must initiate consultation with NMFS or FWS under



Section 7 whenever it takes an action that “may affect” a listed species. See 50 C.F.R. § 402.14(a). The Ninth Circuit Court of Appeals has construed the term “action” broadly. See Pacific Rivers Council v. Thomas, 30 F.3d 1050, 1054-55 (9<sup>th</sup> Cir. 1994); Connor v. Burford, 868 F.2d 1441, 1453 (9<sup>th</sup> Cir. 1988). The requirements of Section 7(a)(2) apply to the granting licenses such as pesticide registrations. See 50 C.F.R. § 402.02. EPA’s maintenance of FIFRA pesticide registrations constitute ongoing agency actions under Section 7(a)(2). Washington Toxics Coal. v. EPA, 413 F.3d 1024, 1033 (9<sup>th</sup> Cir. 2005). EPA must consult with the Services to ensure that its pesticide registrations comport with the substantive duties imposed by Section 7(a)(2).

As a result of consultation, the federal agency will obtain either a written concurrence letter from NMFS or FWS that the proposed action is “not likely to adversely affect” listed species or their habitat, 50 C.F.R. §§ 402.13, 402.14(b)(1), or a biological opinion evaluating the effects of the federal action on listed species and their critical habitat. 50 C.F.R. § 402.14(a); see generally Thomas v. Peterson, 753 F.2d 754, 763 (9<sup>th</sup> Cir. 1985). If NMFS or FWS concludes that a proposed action is likely to jeopardize a listed species or result in adverse modification of its critical habitat, NMFS or FWS must propose a reasonable and prudent alternative, if available, that will mitigate the proposed action so as to avoid jeopardy and/or adverse modification of critical habitat. 16 U.S.C. § 1536(b)(3).

Separately, ESA § 7(d) prohibits federal agencies, after the initiation of consultation under ESA § 7(a)(2), from making any irreversible or irretrievable commitment of resources if doing so would foreclose the implementation of reasonable and prudent alternatives. 16 U.S.C. § 1536(d); Natural Resources Defense Council v. Houston, 146 F.3d 1118, 1128 (9<sup>th</sup> Cir. 1998) (Section 7(d) violated where Bureau of Reclamation executed water service contracts prior to completion of formal consultation); Marsh, 816 F.2d at 1389 (construction of highway outside species habitat barred by § 7(d) pending completion of consultation). This prohibition is not an exception to the requirements of § 7(a)(2); it is in addition to the requirements of § 7(a)(2); and it ensures that § 7(a)(2)’s substantive mandate is met. See, e.g., Pacific Rivers Council v. Thomas, 30 F.3d 1050 (9<sup>th</sup> Cir. 1994); Greenpeace v. National Marine Fisheries Serv., 80 F. Supp. 2d 1137 (W.D. Wash. 2000).

2. *The reregistration of endosulfan “may affect” threatened and endangered species and adversely modify their designated critical habitat.*

The threshold for a “may affect” determination and required ESA § 7 consultation is low. See 51 Fed. Reg. 19,926, 19,949 (June 3, 1986) (“Any possible effect, whether beneficial, benign, adverse or of an undetermined character, triggers the formal consultation requirement.”). Reregistration of endosulfan unquestionably “may affect” threatened and endangered species and their designated critical habitat.

In its reregistration, EPA acknowledged that endosulfan posed risks “acute and chronic risks to all taxa of endangered/threatened animals – birds, mammals, fish, aquatic invertebrates, amphibians, reptiles and terrestrial for all currently registered uses of endosulfan.” IRED at 33. In 1989, FWS issued a biological opinion on endosulfan under § 7(a)(2), finding that endosulfan potentially affected 130 listed species, causing jeopardy to 43 protected species. IRED at 33.

Endosulfan is used in areas where listed species and their designated critical habitat occur. For example, in 2005, approximately 83,212 pounds of endosulfan were used in California, with reported use occurring in Fresno, Kings, Imperial, Riverside, Kern, Siskiyou, Yolo, Solano, Sutter, Tulare, Colusa, Monterey, Madera, Santa Clara, San Benito, Ventura, Merced, Sonoma, San Joaquin, Los Angeles, Placer, Santa Cruz, Santa Barbara, San Mateo, and Amador counties. PAN Pesticides Database, Endosulfan Use Statistics for 2005.<sup>2</sup> Over 50 threatened and endangered species live in those counties and may be affected by endosulfan. For example, the endangered San Joaquin kit fox, threatened Western snowy plover, and endangered blunt-nosed leopard lizard are only three of many endangered and threatened species that live within one mile of endosulfan uses. California Department of Pesticide Regulation, Species by Pesticide at 115-16.<sup>3</sup> Additionally, atmospheric transport has caused contamination of snow in Sequoia National Park and water in the Lake Tahoe Basin in the Sierra Nevada mountains, an area home to listed species including Sierra Nevada bighorn, Lahontan cutthroat trout, Paiute cutthroat trout, Central Valley chinook salmon, Central Valley steelhead, Little Kern golden trout, Least Bell’s vireo, southwestern willow flycatcher, and California red-legged frog.

Endosulfan use in other regions of the country also harms listed species. The intensive agriculture in South Florida impacts fragile natural ecosystems in the Everglades and marine bays. Endosulfan’s concentrations in surface water often exceed the water quality criteria of the Florida Department of Environmental Protection. A field study conducted during 1993 to 1997 showed that endosulfan was detected in water samples at 100% of 12 monitoring sites in South Florida.<sup>4</sup> Eight of these monitoring sites within agricultural areas were in canals that drained into Florida Bay. In Florida Bay, endangered Atlantic ridley and hawksbill sea turtles, threatened green and loggerhead sea turtles, endangered American crocodiles, threatened American alligators, endangered manatees, and endangered wood storks all make their home.

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<sup>2</sup> Available at [http://www.pesticideinfo.org/Detail\\_ChemUse.jsp?Rec\\_Id=PC35085](http://www.pesticideinfo.org/Detail_ChemUse.jsp?Rec_Id=PC35085) (last viewed Feb. 29, 2008).

<sup>3</sup> Available at <http://www.cdpr.ca.gov/docs/endspec/espdfs/spxpest.pdf> (last viewed Feb. 29, 2008).

<sup>4</sup> Scott, G.I., M.H. Filton, E.F. Wirth, G.T. Chandler, P.B. Key, J.W. Daugomah, D. Bearden, K.W. Chung, E.D. Strozier, M. Delorenzo, S. Sivertsen, A. Dias, M. Sanders, J.M. Macauley, L.R. Goodman, M.W. Lacroix, G.W. Thayer, and J. Kucklick. 2002. Toxicological studies in tropical ecosystems: An ecotoxicological risk assessment of pesticide runoff in south Florida estuarine ecosystems. *J. Agric. Food Chem.* 50:4400–4408.

Endosulfan 60-Day Notice  
May 13, 2008  
Page 6

EPA's decision to reregister endosulfan easily trips the "may affect" trigger for ESA § 7(a)(2) consultation.

3. *EPA did not consult on the endosulfan reregistration.*

Despite the presence of threatened and endangered species in areas where endosulfan is used, and EPA's acknowledgment that endosulfan may affect endangered and threatened species, EPA did not consult with the Services to ensure that reregistering endosulfan would not jeopardize listed species or adversely modify their critical habitat. IRED at 33. This failure to consult on an action that "may affect" listed species violates the Endangered Species Act.

\* \* \*

Sincerely,



Joshua Osborne-Klein  
Kristen L. Boyles

*Attorneys for Beyond Pesticides and NRDC*

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Endosulfan 60-Day Notice  
May 13, 2008  
Page 7

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Endosulfan 60-Day Notice  
May 13, 2008  
Page 8

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