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IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

CENTER FOR BIOLOGICAL DIVERSITY, a non-profit organization; and **PESTICIDE ACTION NETWORK NORTH AMERICA**, a non-profit organization; Plaintiffs, v. **ENVIRONMENTAL PROTECTION AGENCY**; and **ROBERT PERCIASEPE**, Acting Administrator, U.S. EPA; Defendants, and **CROPLIFE AMERICA**, *et al.*, Intervenor-Defendants.	Case No. 3:11-cv-00293-JCS **AMENDED COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF**

INTRODUCTION

1. This action challenges the failure of Defendants Environmental Protection Agency and Robert Perciasepe, Acting Administrator of the Environmental Protection Agency (collectively "EPA"), to initiate and reinitiate consultation with the United States Fish and Wildlife Service ("FWS") and National Marine Fisheries Service ("NMFS") (collectively "Service") pursuant to Section 7(a)(2) of the Endangered Species Act ("ESA"), 16 U.S.C. § 1536(a)(2), regarding EPA's actions in registering and reregistering pesticides, as well as its actions in exercising continuing regulatory authority over pesticide use in the United States.

2. Despite the vast amount of data and research – including from EPA itself – demonstrating widespread and devastating impacts of toxic pesticides to wildlife, EPA, for over two decades, has refused to consult with, or reinitiate consultation with, the Service, thus abdicating its responsibilities to the nation's most vulnerable wildlife. This litigation is aimed at forcing EPA to consult with the Service on pesticides known to be toxic to the dozens of endangered and threatened species at issue in this case.

3. Consultation with the Service is necessary to ensure that EPA's regulation of these toxic pesticides does not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of designated critical habitat of these species. 16 U.S.C. § 1536(a)(2). If EPA engaged in consultation as required, the Service would assess how pesticides are affecting listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives and measures to protect the species. 16 U.S.C. § 1536(a)(3).

4. Similarly, reinitiation of consultation is necessary for pesticides addressed in consultations completed in 1989 and 1993, which are the last significant consultations from FWS regarding pesticides. These pesticides continue to harm and kill endangered and threatened species, such as documented deaths of the San Joaquin kit fox from a rodenticide called brodifacoum. Moreover, over the past 20 years, numerous studies, EPA findings, new data, and changes in the manner and extent of pesticide use demonstrate the need for reinitiation of consultation.

5. The Center for Biological Diversity ("the Center") and Pesticide Action Network North America ("PANNA") (collectively "Plaintiffs" or "the Center") seek an order declaring that EPA has

violated Section 7(a)(2) of the ESA by failing to undergo consultation and reinitiate consultation with the Service concerning pesticide impacts on endangered and threatened species in the United States. Plaintiffs seek an order compelling EPA to initiate and reinitiate the consultation process. Plaintiffs also seek an order enjoining EPA from allowing pesticide uses that may result in pesticides entering occupied habitat or designated critical habitat of endangered and threatened species until the consultation process has been completed and EPA is in compliance with Section 7(a)(2).

JURISDICTION AND VENUE

6. The Court has jurisdiction over this action by virtue of 28 U.S.C. § 1331 because Plaintiffs allege violations of federal law. The Court is authorized to provide declaratory and injunctive relief pursuant to 28 U.S.C. §§ 2201 - 2202. The ESA's citizen suit provision, 16 U.S.C. § 1540(g), provides the district court jurisdiction to enforce the ESA and its implementing regulations. In the alternative, jurisdiction is proper under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), 7 U.S.C. § 136n(a), to challenge final actions of the EPA that do not follow a hearing.

7. As required by the ESA, 16 U.S.C. § 1540(g)(2)(A), Plaintiffs provided EPA with at least 60 days notice of their intent to sue by sending letters to EPA on January 27, 2010, March 16, 2010, and May 20, 2010.

8. EPA has not remedied the violations set out in the 60-day notices.

9. Venue lies in this Court pursuant to 28 U.S.C. § 1391(e) as Plaintiffs reside in this judicial district and no real property is involved. In addition, under 16 U.S.C. § 1540(g)(3)(A), this lawsuit may be brought in this judicial district because Defendants' violations of the ESA have occurred in this district.

INTRADISTRICT ASSIGNMENT

10. Pursuant to Civil Local Rules 3-2(c) and 3-2(d), this action is properly assigned to either the San Francisco or Oakland Division of this Court because Plaintiffs reside in and maintain offices in San Francisco County.

PARTIES

11. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY is a non-profit corporation with offices in San Francisco, Joshua Tree, and Los Angeles, California; Portland, Oregon; Silver Springs,

New Mexico; Tucson and Flagstaff, Arizona; Anchorage, Alaska; Richmond, Vermont; Seattle, Washington; Minneapolis and Duluth, Minnesota; Las Vegas, Nevada; and Washington, D.C. The Center is actively involved in species and habitat protection issues throughout the United States, including the U.S. territories, as well as outside of the United States. The Center has approximately 40,000 members that live throughout the United States, including in San Francisco.

12. Plaintiff PESTICIDE ACTION NETWORK NORTH AMERICA is a non-profit, public interest organization in San Francisco. PANNA is one of five independent regional centers of Pesticide Action Network International, a network of more than 600 organizations in 90 countries. Pesticide Action Network has 22,000 members and more than 100 organizational partners across the United States, working to replace the most hazardous pesticides with ecologically sound, socially just alternatives that protect people and the environment. For 28 years, Pesticide Action Network has fought to preserve ecosystems, biodiversity, sustainable agriculture, and community food security.

13. Defendant ENVIRONMENTAL PROTECTION AGENCY is the federal agency charged with registering pesticides under FIFRA. As such, EPA must ensure that the pesticide uses it authorizes will not have unreasonable adverse effects on the environment, including on endangered and threatened species and their habitats. 7 U.S.C. §§ 136-136y. EPA also has duties to regulate and restrict pesticide uses under the Federal Food, Drug, and Cosmetic Act, as amended by the Food Quality Protection Act, 21 U.S.C. §§ 307-397. EPA is further charged with complying with the ESA with respect to its programs, authorities, and actions. 16 U.S.C. § 1536. Here, Plaintiffs bring claims only under the ESA.

14. Defendant ROBERT PERCIASEPE is the Acting Administrator of EPA. He is sued in his official capacity as EPA Acting Administrator.

LEGAL BACKGROUND

I. EPA's Duties Under The Endangered Species Act

15. Congress enacted the ESA, in part, to provide a "means whereby the ecosystems upon which endangered species and threatened species depend may be conserved . . . [and] a program for the conservation of such endangered species and threatened species . . . ." 16 U.S.C. § 1531(b).

16. The ESA vests primary responsibility for administering and enforcing the statute with the Secretaries of Commerce and Interior. The Secretaries of Commerce and Interior have delegated this responsibility to the NMFS and the FWS respectively.

17. When a species has been listed as threatened or endangered under the ESA, all federal agencies – including EPA – must ensure that their programs and activities are in compliance with the ESA.

18. To this end, Section 7(a)(2) of the ESA requires that "each federal agency shall, in consultation with and with the assistance of the [Service], insure that any action authorized, funded, or carried out by such agency [hereinafter "agency action"] is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the [Service] . . . to be critical." 16 U.S.C. § 1536(a)(2).

19. The ESA establishes an interagency consultation process to assist federal agencies in complying with their Section 7(a)(2) duty to guard against jeopardy to listed species or destruction or adverse modification of critical habitat. Under Section 7(a)(2), federal agencies must consult with the Service to determine whether their actions will jeopardize listed species' survival or adversely modify designated critical habitat, and if so, to identify ways to modify the action to avoid that result. 50 C.F.R. § 402.14 (2010).

20. An agency must initiate consultation under Section 7 whenever its action "may affect" a listed species or critical habitat. 50 C.F.R. § 402.14(a). Conversely, an agency is relieved of the obligation to consult on its actions only where the action will have "no effect" on listed species or designated critical habitat. "Effects determinations" are based on the direct, indirect, and cumulative effects of the action when added to the environmental baseline and other interrelated and interdependent actions. 50 C.F.R. § 402.02 (definition of "effects of the action").

21. An agency is required to review its actions "at the earliest possible time" to determine whether the action may affected listed species or critical habitat. 50 C.F.R. § 402.14(a).

22. The scope of agency actions subject to consultation are broadly defined to encompass "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies." 50 C.F.R. § 402.02 (definition of "action").

23. Agencies must reinitiate consultation on agency actions over which the federal agency retains, or is authorized to exercise, discretionary involvement or control if the amount or extent of taking specified in the incidental take statement is exceeded; new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or if a new species is listed or critical habitat designated that may be affected by the identified action. 50 C.F.R. § 402.16 (reinitiation of consultation).

24. Section 7(d) of the ESA, 16 U.S.C. § 1536(d), provides that once a federal agency initiates consultation on an action under the ESA, the agency "shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section." The purpose of Section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its obligations under Section 7(a)(2) that the action will not result in jeopardy to the species or adverse modification of its critical habitat.

25. To initiate consultation, the action agency (here, EPA) must assess the impacts of the action on listed species and their habitat and provide all relevant information about such impacts to the Service. 50 C.F.R. § 402.14(c). If the action agency determines that an action "may affect," but is "not likely to adversely affect" the listed species or its critical habitat and the Service concurs in writing with that determination, the agency does not have to undergo formal consultation. 50 C.F.R. § 402.13.

26. If the Service does not concur, or if the action agency has determined that the action is "likely to adversely affect" the listed species, the agencies must conduct a formal consultation. *Id*. at §§ 402.02, 402.14(a).

27. The end product of formal consultation is a biological opinion in which the Service determines whether agency action will jeopardize the survival and recovery of listed species or will destroy or adversely modify the species' critical habitat. 16 U.S.C. § 1536(b). To make this determination, the Service must review all relevant information and provide a detailed evaluation of the action's effects, including the cumulative effects of federal and nonfederal activities in the area, on the listed species. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(g)-(h). The Service has a statutory duty to use the best available scientific information in an ESA consultation. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(8). If the Service determines that the action is likely to jeopardize the species, the biological opinion must specify "reasonable and prudent alternatives" that will avoid jeopardy. 16 U.S.C. § 1536(b); 50 C.F.R. § 402.14(h)(3). The Service must also formulate discretionary conservation recommendations to reduce or minimize the action's impacts on listed species or critical habitat. 50 C.F.R. § 402.14(g)(6).

28. "[R]easonable and prudent alternatives" are alternative actions identified during formal consultation that (1) can be implemented in a manner consistent with the intended purpose of the action, (2) can be implemented consistent with the scope of the action agency's legal authority, (3) are economically and technologically feasible, and (4) would avoid the likelihood of jeopardizing the continued existence of listed species and/or avert the destruction or adverse modification of critical habitat.

29. Not only does a Section 7(a)(2) consultation assist the action agency in discharging its duty to avoid jeopardy, but the biological opinion also affects the agency's obligation to avoid the "take" of listed species. Under ESA Section 9, 16 U.S.C. § 1538(a)(1)(B), it is illegal for any person – whether a private or governmental entity – to "take" any endangered species of fish or wildlife listed under the ESA. "Take" is defined to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such conduct. *Id*. at § 1532(19). The Service has defined "harm" to include "significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding or sheltering." 50 C.F.R. § 222.102.

30. As part of a consultation, the Service determines whether to authorize the take of listed species through the issuance of an incidental take statement. An incidental take statement may be issued only if the action can proceed without causing jeopardy. 16 U.S.C. § 1536(b)(4). An incidental take statement must: (1) specify the impact of the incidental take on the listed species; (2) specify "reasonable and prudent measures" the agency considers necessary to minimize that impact; and (3) set forth mandatory terms and conditions. *Id*.

31. Reasonable and prudent measures, along with terms and conditions, are nondiscretionary measures included in an incidental take statement that the Service considers necessary to minimize and reduce impact to listed species and avoid jeopardy.

32. An incidental take statement insulates the federal agency from liability for a take of an endangered or threatened species, provided the agency complies with the statement's terms and conditions. This insulation extends further to any entity receiving a federal permit, license, authorization, or funding subject to, and in compliance with, the statement. 16 U.S.C. § 1536(o)(2).

II. EPA's Oversight Of Pesticides Under The Federal Insecticide, Fungicide, And Rodenticide Act

33. The Environmental Protection Agency is responsible for the oversight of pesticide registration and use in the United States. Specifically, the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") charges EPA with registration, review, and ongoing oversight of chemicals for use as insecticides, herbicides, fungicides, rodenticides, fumigants, and other pesticides (collectively "pesticides") in the United States. 7 U.S.C. §§ 136-136y. Under FIFRA, a pesticide generally may not be sold or used in the United States unless it has an EPA registration for that particular use. 7 U.S.C. § 136a(a).

34. EPA may register a pesticide if it makes the following determinations: (1) the labeling complies with FIFRA's requirements; (2) the composition claims are warranted; (3) the pesticide will perform its intended function; and (4) the pesticide will not cause unreasonable adverse effects on the environment. 7 U.S.C. § 136a(c)(5).

35. The registration process includes EPA's approval of a label for the particular pesticide. FIFRA makes it unlawful to use a pesticide in a manner inconsistent with the label, 7 U.S.C. § 136j(2)(G), or to make any claims that differ substantially from the label. 7 U.S.C. § 136j(1)(B).

36. EPA must classify pesticides as general or restricted use pesticides, depending on the risk posed to the environment. Where necessary to guard against unreasonable adverse environmental effects, EPA must classify a pesticide as restricted use. 7 U.S.C. § 136a(d)(1)(C). Restricted use pesticides are subject to additional regulatory restrictions, particularly concerning application of the pesticide. *Id.*

37. In 1988, amendments to FIFRA established a comprehensive reregistration scheme for pesticides. 7 U.S.C. § 136a–1. The 1988 amendments require reregistration of all pesticide active ingredients initially registered before November 1, 1984.

38. EPA's reregistration decisions require EPA to determine whether the pesticide causes unreasonable adverse effects to people or the environment when used according to product labeling. 7 U.S.C. § 136a–1(g)(2)(C). EPA has the authority to compel registrants to submit data necessary for a reregistration review. *Id.* § 136a(g)(2). The results of EPA's review are presented in a Reregistration Eligibility Decision ("RED") document.

39. The RED contains a human health assessment and an ecological risk assessment. The ecological risk assessment evaluates the likelihood that exposure to that pesticide may cause harmful ecological effects. The effects can be direct (e.g. fish suffer the toxic effects from a pesticide entering waterways), or indirect (e.g. birds become sick from ingesting contaminated fish).

40. The ecological risk assessment does not consider the cumulative or synergistic effects posed by multiple pesticides on wildlife or the environment, nor does it address delayed effects of pesticides, referred to as "lag effects."

41. The types of measures included in REDs to reduce risks from pesticides include: voluntary cancellation of pesticide products or deletion of uses; declaring certain uses ineligible or not yet eligible (and then proceeding with follow-up action to cancel the uses or require additional supporting data); restricting use of products to certified applicators; limiting the amount or frequency of use; improving use directions and precautions; requiring more protective clothing and equipment for

users; requiring special packaging or engineering controls; requiring no-treatment buffer zones; employing ground water, surface water, or other environmental and ecological safeguards; and other measures.

42. In 1996, Congress further amended FIFRA with the Federal Food, Drug, and Cosmetic Act ("FFDCA"), 21 U.S.C. § 346a, as amended by the Food Quality Protection Act ("FQPA"), Pub. L. 104-170, which established new safety standards for pesticide residue in food. Under FQPA, EPA must further determine with "reasonable certainty that no harm" will come to infants, children or other sensitive individuals exposed to pesticides from food, water, and home and garden use. EPA is satisfying FQPA's requirements by reassessing all existing "tolerances," which are maximum limits for pesticide residues in foods. EPA is using the reregistration program to accomplish the tolerance reassessments.

43. After EPA has issued a RED and declared a pesticide eligible for reregistration, individual end-use products that contain pesticide active ingredients included in the case still must be reregistered. *See* U.S. EPA, Evaluation of the U.S. Pesticide Product Reregistration Process: Opportunities for Efficiency and Innovation at 1-4, *available at* http://www.epa.gov/evaluate/pdf/pesticides/eval-epa-pesticide-product-reregistration-process.pdf (last visited May 22, 2013). This concluding part of the reregistration process is referred to as "product reregistration." *Id*. In issuing a completed RED document, EPA calls in any product-specific data and revised labeling needed to make final reregistration decisions for each of the individual pesticide products covered by the RED. *Id*. The EPA receives and evaluates the requested studies from the registrants and requests additional information, as needed, and conducts a preliminary label assessment. *Id*.

44. Based on its review of the data and labeling, EPA reregisters a product only "if it was found to meet FIFRA and FFDCA standards." *Id*. These standards include the requirement that "it will perform its intended function without unreasonable adverse effects on the environment." 7 U.S.C. § 136a(c)(5); *see also* 7 U.S.C. § 136a-1(g)(2)(C) (explaining that the requirements of 7 U.S.C. § 136a(c)(5) must be met when analyzing the product specific data); 40 C.F.R. § 152.112 ("EPA will approve an application under the criteria of FIFRA section 3(c)(5) only if: . . . The Agency has

determined that the product will perform its intended function without unreasonable adverse effects on the environment, and that, when used in accordance with widespread and commonly recognized practice, the product will not generally cause unreasonable adverse effects on the environment."); 40 C.F.R. § 152.113(a) ("[T]he Agency may approve an application for registration or amended registration of a pesticide product, each of whose active ingredients is contained in one or more other registered pesticide products, only if the Agency has determined that: . . . (2) Approval of the application would not significantly increase the risk of any unreasonable adverse effect on the environment.").

45. Several outcomes are possible for a pesticide product completing this final phase of the reregistration process: reregistered product, amended product, suspended product, or canceled product. *See* U.S. EPA, Product Reregistration, *available at* http://www.epa.gov/pesticides/reregistration/product-reregistration.htm (last visited May 22, 2013). The primary output of this step is a reregistration notice issued to the registrant and the stamped pesticide label, which includes any revised mitigation specified in the RED or during the product reregistration process. *See* U.S. EPA, Evaluation of the U.S. Pesticide Product Reregistration Process: Opportunities for Efficiency and Innovation at 1-4, *available at* http://www.epa.gov/evaluate/pdf/pesticides/eval-epa-pesticide-product-reregistration-process.pdf (last visited May 22, 2013).

46. After approving pesticide and product registrations and reregistrations, EPA retains discretionary involvement and control over them. *See Washington Toxics Coalition v. EPA*, 413 F.3d 1024, 1033 (9th Cir. 2005). Registrations are "ongoing and have a long-lasting effect," and EPA has "continuing authority" over registrations. *Id*. "This is because here EPA retains ongoing discretion to register pesticides, alter pesticide registrations, and cancel pesticide registrations." *Id*. (citing 7 U.S.C. § 136a-d). Specifically, the EPA Administrator has the authority to cancel pesticide registrations or change its classification whenever "a pesticide or its labeling or other material required to be submitted does not comply with the provisions of [FIFRA] or, when used in accordance with widespread and commonly recognized practice, generally causes unreasonable adverse effects on the environment." 7 U.S.C. § 136d(b). The Administrator may immediately suspend a pesticide registration to prevent an

imminent hazard. *Id*. § 136d(c). EPA may change the use classification of any pesticide when necessary to prevent unreasonable adverse effects on the environment. 7 U.S.C. § 136a(d)(2). Also, EPA may determine that additional data is required to maintain an existing pesticide registration. 7 U.S.C. § 136a(c)(2)(B)(i). EPA must periodically review pesticide registrations with a goal of reviewing each pesticide registration every 15 years. 7 U.S.C. § 136a(g)(1). Registrants are required to submit to EPA any information about registered pesticides' unreasonable adverse effects on the environment. 7 U.S.C. § 136d(a)(2). EPA considers such information in reviewing and, where necessary, modifying the pesticide registrations.

47. FIFRA's regulations also demonstrate EPA's discretionary control and involvement. For example, 40 CFR Part 154 (Special Review) authorizes EPA "to cancel, deny, or reclassify registration of a pesticide product because uses of that product may cause unreasonable adverse effects on the environment . . . . The issuance of a Notice of Special Review means that the [EPA] has determined that one or more uses of a pesticide may pose significant risks and that, following completion of the Special Review process, the Agency expects to initiate formal proceedings seeking to cancel, deny, reclassify, or require modifications to the registration of the product(s) in question . . . ." 40 C.F.R. § 154.1(a).

48. For every pesticide covered by this Complaint, EPA has taken affirmative action on that pesticide since its original registration. These actions include reregistrations (REDs or Interim REDs), product registrations and reregistrations, tolerances, cancellation orders, revised fact sheets for REDs, amendments or corrections to REDs, and more. These subsequent affirmative actions provide further evidence that pesticide registrations are "ongoing and have a long-lasting effect," that EPA has "continuing authority" over registrations, and that EPA's oversight of registered pesticides constitutes "ongoing agency action" as defined by the Ninth Circuit.

III. EPA's Review Of Pesticide Impacts On Listed Species

49. In 1988, EPA established the "Endangered Species Protection Program" or "ESPP" to try to address its pesticide program's compliance with the ESA.

50. EPA uses Endangered Species Protection Bulletins ("Bulletins") to reflect geographically specific pesticide use limitations. In November of 2005, EPA published a final notice

for its Field Implementation of its Endangered Species Protection Program ("ESPP"). Prior to issuance of the final ESPP, these Bulletins were voluntary. While the Bulletins are now enforceable if referenced on the product label, EPA has issued very few Bulletins.

51. Despite the existence of EPA's ESPP program for over 20 years, the vast majority of pesticides have undergone no ESA analysis of impacts to listed species.

52. In fact, on information and belief, since 1993, there have been only a few completed consultations with the Service regarding pesticide impacts to listed species, other than those imposed by court orders, as discussed below.

IV. Previous Litigation Addressing EPA's Failure To Consult With The Service Regarding Pesticide Impacts To Endangered And Threatened Species

53. On January 30, 2001, a coalition of environmental groups filed a lawsuit against EPA for violating the ESA when it failed to consult with the NMFS on pesticide impacts to endangered or threatened salmon and steelhead in the waters of the Pacific Northwest. EPA admittedly did not do any such consultation, but it argued that because it complied with FIFRA in registering the pesticides, it was not bound by the ESA. The Ninth Circuit rejected EPA's contention and held that the agency was bound by the ESA: "EPA retains ongoing discretion to register pesticides, alter pesticide registrations, and cancel pesticide registrations. Because EPA has continuing authority over pesticide regulation, it has a continuing obligation to follow the requirements of the ESA." *Washington Toxics Coalition v. EPA*, 413 F.3d 1024, 1033 (9th Cir. 2005). The Ninth Circuit affirmed the district court's grant of injunctive relief, which placed restrictions on the use of certain pesticides in the habitat of listed salmon and steelhead. *Id*. at 1035.

54. On April 2, 2002, the Center for Biological Diversity filed a lawsuit against EPA for failing to undergo consultation with the FWS regarding pesticide impacts on the California red-legged frog, in violation of Section 7(a)(2) of the ESA. On September 19, 2005, the Court granted the Center's motion for summary judgment. *Center for Biological Diversity v. Leavitt*, 2005 U.S. Dist. LEXIS 40806, * 12 (N.D. Cal. Sept. 19, 2005). Pursuant to the Court's order, the parties on October 20, 2006 stipulated to a schedule by which EPA would determine if its actions could affect the species and which provided interim injunctive relief.

55. On May 30, 2007, the Center for Biological Diversity filed a lawsuit against EPA for failing to undergo consultation with FWS regarding pesticide impacts on eleven San Francisco Bay Area species, in violation of Section 7(a)(2) of the ESA. On May 17, 2010, the Court entered an Order Approving Stipulated Injunction and Order. *Center for Biological Diversity v. Environmental Protection Agency*, 3:07-cv-02794-JCS (Docket No. 121). Through this stipulation, EPA agreed to a schedule of compliance for completing consultation and an injunction to remedy its violations.

FACTUAL BACKGROUND

I. Pesticide Use In The U.S.

56. Widespread use of synthetic pesticides began after World War II when federal and local governments sponsored large-scale spraying programs using organochlorines such as DDT. Although many of the organochlorines have been phased out, they have been replaced with less persistent yet still potentially harmful chemicals such as organophosphates, carbamates, and triazines.

57. Over one billion pounds of pesticides are used each year in this country to control weeds, insects and other living organisms. EPA has registered more than 18,000 pesticides.

58. Agriculture accounts for 70 to 80 percent of total pesticide use with few measures in place to protect the environment. Home and commercial uses also contribute significant amounts of pesticides to our environment.

II. Pesticide Contamination Of The Environment

Runoff Leads To Contaminated Waterways

59. Agricultural and urban runoff transports pesticides from their application sites to other parts of the environment. Movement of pesticides via runoff can occur when pesticides are dissolved in the water or bound to eroding soil particles.

60. Over the last decade, the United States Geological Survey ("USGS") has released several reports on its nationwide water quality surveys, documenting the prevalence of pesticides in our nation's waterways, particularly in streams and groundwater in basins with significant agricultural or urban development. For example, of 186 stream sites sampled nationwide, 57 percent of 83 agricultural streams, 83 percent of 30 urban streams, and 42 percent of 65 streams with mixed-land-use

watersheds had concentrations of at least one pesticide that exceeded one or more aquatic-life benchmarks during the selected year of sampling.

61. Polluted runoff can pose acute and chronic problems to wildlife and plants. USGS noted a direct correlation between the amounts and types of pesticides used and their frequency in nearby surface waters. USGS found pesticides in waters at concentrations exceeding harmful levels and mixtures of multiple pesticides were commonly found in stream samples.

Pesticide Drift Harms Wildlife Far From Target Sites

62. Runoff is not the only mechanism by which pesticides travel inadvertently. Pesticide drift is any airborne movement of pesticides away from the target site. Fine droplets generated by spray nozzles can drift long distances before settling. EPA receives thousands of reported complaints of off-target spray drift each year. EPA acknowledges that some degree of spray drift will occur from nearly all pesticide applications.

63. In addition, applications of gaseous fumigant pesticides always involve escape of the gases from the intended application site, generally through the normal (and presently legal) application process, but also through leaking equipment, containers, or tarps.

64. Pesticide drift does not end when applications are complete. Post-application drift also may occur over many days and even weeks after a pesticide application. Post-application drift takes two forms. Volatilization drift occurs because some pesticides readily volatilize from the leaf and soil surfaces on which they were initially deposited. These pesticides might be liquids or oils when applied, but evaporate in the heat of the day, drift for a distance, and re-condense when the temperature drops or when they contact a cool surface. This process is repeated many times as the pesticide is carried by prevailing winds. Drift of pesticide-coated dust particles can also occur. High winds in agricultural areas create clouds of dust from pesticide-treated fields. This dust is eventually deposited, often a great distance from its application point. Both volatile and non-volatile pesticides may cling to dust particles and drift in this manner.

65. The amount of drift that occurs via pesticide use has been characterized as "considerable" by the National Research Council and is thought to vary from 5 percent (under optimal low wind conditions) to 60 percent (under more typical conditions). Pesticides can drift for many

miles. For example, scientists have documented 2,4-D drift for 10 to 50 miles and paraquat drift for up to 20 miles in central Washington.

66. Impacts to non-target wildlife from pesticide drift have been well documented. For example, studies have implicated pesticide drift from the Central Valley of California in disproportional declines of several native frog species in the Sierra Nevada mountain range. Even tadpoles collected from high in the Sierra Nevada in areas with no direct pesticide use contain pesticide residues in their systems.

III. Pesticide Classes

Insecticides

67. Insecticides are used in agricultural, commercial, and residential settings to control arthropod and arachnid insects. Aquatic arthropods such as crustaceans and aquatic insects are also sensitive to insecticides. Because many insecticides work by mechanisms of action that also apply in mammalian, avian, fish, amphibian and reptile species, they are directly toxic to many animal taxa groups.

68. Insecticides can also have indirect effects on endangered species by virtue of their toxicity to the food sources; for example, some fish species are not particularly sensitive to some types of insecticides, yet the aquatic insects that they rely on for a food supply can be eliminated by a toxic pulse of pesticide from field runoff.

69. The different classes of insecticides have differing relative toxicity to different taxa groups. The neurotoxic organochlorine, organophosphorus, and carbamate insecticides can be acutely toxic to birds, mammals, and fish.

70. Broad-spectrum pesticides used to destroy pest insects can disrupt the natural balance between pest and predator insects and indiscriminately kill beneficial insects needed for pollination and other ecosystem services as well.

Herbicides

71. Herbicides are used in agricultural, commercial, and residential settings to control terrestrial and aquatic weeds.

72. Many herbicides are water soluble with low affinity for soils and thus have potential to run off into aquatic ecosystems where they may pose a risk to aquatic species. Both runoff and spray drift of herbicides into aquatic and terrestrial habitats can destroy plant cover used for habitat and food for endangered animals, leading to indirect effects on endangered species. Although generally less acutely toxic than insecticides, many herbicides may cause chronic effects on reproduction through disruption of the endocrine system or by other mechanisms.

73. Several classes of herbicides are particularly problematic for endangered species. Some chloroacetanilide herbicides (e.g. alachlor) are toxic to certain species of mammals, birds, crustaceans and fish, as well as non-target plants. Triazine herbicides (e.g. atrazine) have been associated with endocrine disruption, with effects on the reproductive and immune systems capable of compromising populations of endangered species.

Rodenticides

74. Rodenticides are used to control mice, rats, gophers, other rodents, and rabbits in agricultural, residential, and commercial settings.

75. There is potential for harm not only to endangered rodents, but also to the many predator species that depend on rodents as food. Raptors, scavengers (such as the California condor), and mammalian predators (such as wolves and foxes) are all vulnerable from ingesting poisoned rodents.

76. Rodenticides fall into several categories, such as first-generation anticoagulants (e.g. chlorophacinone and diphacinone) and second-generation anticoagulants (e.g. brodifacoum). For the second-generation anticoagulants, the time between ingestion and death can be as long as five days. Additionally, second-generation anticoagulants can persist in body tissues for nearly one year and can cause secondary poisoning to predators over extended periods of time.

Fungicides

77. Fungicides (e.g. captan) are used against molds, mildews, soil pathogens, and in wood preservation.

78. As a group, fungicides are heterogeneous and diverse and may affect a wide variety of endangered species through various mechanisms. Acute effects to aquatic species are particularly

notable for fungicides. Endocrine disruption is also a potential effect of exposure to many fungicides, with effects on reproduction and the immune system.

Fumigants

79. Fumigant pesticides (e.g. 1,3-dichloropropene) are used in pre-plant soil treatments to kill nematodes, fungal pathogens, and weed seeds.

80. Fumigants are used at application rates between 50 and 400 pounds per acre and are all highly volatile, vaporizing to form gases that drift away from the application site and into neighboring areas.

81. EPA has not required sufficient data for a comprehensive ecological analysis, and it has not prioritized these chemicals for ecological risk assessment, assuming that effects are minimal, although there is little data to support that conclusion. In fact, many of these chemicals are neurotoxic and/or highly irritating and used at such high application rates that animals adjacent to fumigation sites find it impossible to avoid inhalation exposure at levels that could be fatal or severely damaging to the individual. Spills of liquid fumigants into waterways can be similarly devastating to aquatic life.

IV. Harmful Biological Effects Of Pesticides

82. Pesticides are well known to have adverse effects on wildlife. These impacts have been in the public consciousness since the mid-1950s when Rachel Carson published *Silent Spring*, which examined devastating impacts of pesticides on the environment, particularly birds. In 2004, the Center published *Silent Spring Revisited: Pesticide Use and Endangered Species*, detailing the Environmental Protection Agency's dismal record in protecting endangered species from pesticides.

83. Death is the most extreme and obvious effect of exposure to pesticides, but it is not the only significant biological impact. Sublethal effects occur at far lower concentrations than those that cause death. Sublethal effects include impaired growth and development, malformations, reduced reproductive success, immune suppression, and more. For example, a 2009 study found that exposure to pesticides can slow the time to metamorphosis for frog and toad species. Such delay causes increased vulnerability to predators and may be a factor contributing to widespread amphibian decline.

84. Aquatic species are particularly vulnerable to the harmful impacts of pesticides because pesticides are pervasive in U.S. waterways. USGS found that "[a]lmost every sample of water and fish

from streams and major rivers in all land use settings contained at least one of the pesticides that we measured. This means that, throughout the nation, almost every time and place that you observe a stream or river in a populated area you are looking at water that contains pesticides, inhabited by fish that contain pesticides."

85. Many of the pesticides detected in U.S. waterways have been discontinued for many years, and their continued presence raises serious concerns about the long-term chronic impacts of pesticides on aquatic species. Moreover, more recent and currently used pesticides (such as chlorpyrifos, bensulide, pendimethalin, trifluralin, phorate, and propargite) are all predicted to have potential to accumulate in aquatic biota.

86. Amphibians are highly susceptible to pesticides because of their permeable skins. For example, salamanders can readily absorb the chemical chlorpyrifos through their permeable skins, especially when migrating through recently treated fields. Numerous studies have documented significant impacts to amphibians from pesticide exposure.

87. Wildlife can be indirectly impacted when pesticides harm food sources. For example, a 2005 study examined the impacts on salamanders from carbaryl, which is a commonly used insecticide for home gardens, commercial agriculture, and forestry protection. The study found that zooplankton – a primary food source for many salamanders during the aquatic life phase – was nearly eliminated by concentrations of carbaryl commonly found in the environment. Without this food source, the study showed that mortality in salamander larvae increased, resulting in fewer salamanders ultimately reproducing and contributing to population declines.

88. Pesticides may also have indirect effects on insectivorous birds. In a 2010 study published in the Journal of Applied Ecology, scientists found that populations of insectivorous birds declined after application of insecticides suppressed their prey base of mosquitoes. Other studies have shown that herbivorous insects can contain pesticide residues from eating plants sprayed with herbicides. Insectivorous birds that ingest these insects may suffer the harmful effects of the pesticides.

89. Similarly, rodenticides enter the food chain when non-target birds and mammals feed on targeted rodents. In a May 2008 risk assessment for rodenticides, EPA found that widespread exposure of non-target animals is occurring wherever rodenticides are being used. For example, EPA found in

California that 71 to 84% of the 106 bobcats, mountain lions, and San Joaquin kit foxes analyzed had been exposed. EPA suspects that the results from California are representative of non-target wildlife exposures nationwide. In addition, FWS has found that rodenticides typically used on ground squirrels are likely to have a disproportionately adverse effect on salamanders, which can inhabit rodent burrows, are smaller than the target species, and have permeable skins.

90. Synthetic pyrethroids are suspected to have reproductive effects on birds. Sub-lethal exposure to pesticides can chronically affect avian behavior, reproduction, and nervous system function. Birds exposed to pesticides can become more susceptible to predation, experience weight loss, and have decreased resistance to disease. Pesticide exposure can also reduce interest in mating and defending territory and cause birds to abandon their nestlings.

91. Even low doses of pesticides in wildlife can have drastic consequences. This is especially true for pesticides that act as "endocrine disrupters." Endocrine disruptors are chemicals that mimic an organism's hormones, disrupting natural processes by sending false messages, blocking real messages, preventing synthesis of the body's own hormones, and accelerating the breakdown and excretion of hormones. Endocrine disruption affects how an organism develops and functions. Reproductive disorders, immune system dysfunction, thyroid disorders, types of cancer, birth defects and neurological effects have all been linked to endocrine disruption. In particular, carbamate, organophosphate, and triazine pesticides have all been shown to disrupt hormone systems. Over 60% of the poundage of agricultural herbicides applied in the United States has the potential to disrupt endocrine and/or reproductive systems in wildlife (and humans).

92. Atrazine provides a stark example of the problem posed by endocrine disrupters. Atrazine – which is now banned in the European Union – is the most commonly detected pesticide in U.S. waters with about 75% of streamwater and 40% of groundwater containing atrazine. A 2007 USGS report identified atrazine concentrations in watersheds exceeding the level where studies have observed altration in the development of sex characteristics in male frogs. As a result, studies have concluded that aquatic environments across the country are at risk.

93. As alleged below, many of the pesticides at issue in this Complaint are known endocrine disrupters, based on their inclusion in at least one of the following publications:

- Illinois EPA, *Report on Endocrine Disrupting Chemicals* (February, 1997).
- Danish EPA, *Auxiliary Matters with Estrogenic Effects* (April, 2000).
- BKH Consulting Engineers and TNO Nutrition and Food Research ,*Towards the Establishment of a Priority List of Substances for Further Evaluation of Their Role in Endocrine Disruption*, Appendix 1. (June 21, 2000), *available at* http://ec.europa.eu/environment/endocrine/strategy/substances_en.htm (last visited May 9, 2013).
- T. Colborn. Widespread pollutants with reproductive and endocrine-disrupting effects, *available at* http://www.ourstolenfuture.org/Basics/chemlist.htm (last visited May 9, 2013).
- L. Keith. *Environmental Endocrine Disruptors: A Handbook of Property Data, Wiley Interscience* (1997).
- C. Benbrook. *Growing Doubt: A Primer on Pesticides Identified as Endocrine Disruptors and/or Reproductive Toxicants, National Campaign for Pesticide Policy Reform* (1996).

94. The discussion above provides just a few examples of the harm being inflicted by widespread pesticide use, and more information on the harms from each pesticide in the Complaint is included below. These harmful impacts have been known for years. Yet EPA continues to ignore this information at the expense of numerous endangered and threatened species and their habitats. Action by EPA to ensure that registered pesticides are not jeopardizing the survival and recovery of endangered and threatened species is long overdue.

V. Endangered And Threatened Species May Be Adversely Affected From Ongoing Exposure To Pesticides

95. The pesticides identified in Exhibit A, which is attached to this Complaint and hereby fully incorporated within it, may affect the following endangered or threatened species or their critical habitats:

- **Mammals**: Amargosa vole, black-footed ferret, Buena Vista Lake ornate shrew, Carolina northern flying squirrel, Columbian white-tailed deer (Columbia River DPS), Florida salt marsh vole, Florida panther, Fresno kangaroo rat, giant kangaroo rat, gray bat, gray wolf, Indiana bat, Key Largo cotton mouse, Key Largo woodrat, killer whale (southern resident DPS), Louisiana black bear, Lower Keys rabbit, Morro Bay kangaroo rat, ocelot, Preble's meadow jumping mouse, riparian brush rabbit, riparian woodrat (=San Joaquin Valley), San Joaquin kit fox, Stephen's kangaroo rat, Tipton kangaroo rat, West Indian manatee;

- **Birds**: Audubon's crested caracara (Florida DPS), California condor, California least tern, Coastal California gnatcatcher, Florida grasshopper sparrow, Florida scrub jay, light-footed clapper rail (U.S. DPS), northern spotted owl, piping plover, southwestern willow flycatcher, western snowy plover (Pacific DPS), wood stork (U.S. breeding DPS);
- **Fish**: Alabama cavefish, Alabama sturgeon, Atlantic salmon (Gulf of Maine DPS), blue shiner, bonytail chub, bull trout (U.S. DPS), Cape Fear shiner, Colorado pikeminnow, desert pupfish, Gulf sturgeon, North American green sturgeon (southern DPS), razorback sucker, Santa Ana sucker, shortnose sturgeon, Topeka shiner, Vermilion darter;
- **Amphibians**: arroyo toad, California tiger salamander (Central California DPS, except for Bay Area Counties), California tiger salamander (Santa Barbara County DPS), Chiricahua leopard frog, frosted flatwoods salamander, dusky gopher frog (= Mississippi gopher frog), mountain yellow-legged frog (Southern California DPS), Puerto Rican crested toad, reticulated flatwoods salamander, San Marcos salamander, Santa Cruz long-toed salamander, Shenandoah salamander, Texas blind salamander, Wyoming toad;
- **Mollusks**: Alabama moccasinshell, Appalachian elktoe, Chipola slabshell, clubshell, Coosa moccasinshell, Cumberlandian combshell, dwarf wedgemussel, fat threeridge, finelined pocketbook, Gulf moccasinshell, heavy pigtoe (= Judge Tait's mussel, Pleurobema taitianum), Higgins eye pearlymussel, littlewing pearlymussel, northern riffleshell, Ochlockonee moccasinshell, oval pigtoe, oyster mussel, pink mucket, purple bankclimber, purple bean, rough pigtoe, shinyrayed pocketbook, southern clubshell, southern combshell (= Penitent mussel, Epioblasma penita), southern pigtoe, stirrup shell, tan riffleshell, triangular kidneyshell, Upland combshell, winged mapleleaf;
- **Crustaceans**: Alabama cave shrimp, conservancy fairy shrimp, Kauai Cave amphipod, Nashville crayfish;
- **Insects**: American burying beetle, Behren's fritillary (= Behren's silverspot), Callippe silverspot, Kauai cave wolf spider, Kern primrose sphinx moth, Lange's metalmark, Mitchell's satyr butterfly, Myrtle's silverspot, Ohlone tiger beetle, Salt Creek tiger beetle, San Bruno elfin;

- **Reptiles**: Atlantic salt marsh snake, bluetail mole skink, blunt-nosed leopard lizard, bog turtle (Northern DPS), desert tortoise, eastern indigo snake, giant garter snake, northern red-bellied cooter (Plymouth red-bellied cooter), sand skink.

96. In addition to the particular pesticides listed in Exhibit A for each species, any pesticide that is toxic to the species and could be used as a substitute for any of the pesticides listed in Exhibit A for that species also poses a risk of harm to the species.

97. The pesticides subject to this lawsuit fall within the following two categories. Category 1 includes pesticides for which EPA has indicated that Estimated Environmental Concentrations are likely to exceed Levels of Concern for endangered or threatened species or may cause indirect effects on endangered species by altering habitat or food sources. Category 2 includes pesticides that are "highly acutely toxic" or "very highly acutely toxic" to one or more taxa groups. These toxicity ratings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration of 50 percent of the test organisms) in one or more of three databases that EPA maintains: AQUIRE, Terretox, and EPA database of ecotoxicity studies used in registration decisions.

98. The endangered or threatened species identified in Exhibit A, as well as their habitats, are susceptible to harmful impacts from pesticides. Federal agency documents or peer-reviewed journal articles document pesticide impacts on these species.

99. In addition, USGS has identified many of the pesticides in this lawsuit (or their degradates) in watersheds that are within the ranges of species that may be affected by that pesticide, as shown in Exhibit B. Watersheds within the range of each species were identified using the NatureServe database. Toxicity was determined for the taxonomic group of each species as discussed above.

100. Exhibit A shows, for each pesticide, which endangered or threatened species may be affected by that pesticide. Combinations of pesticides and species reflect pesticides known to be harmful to the taxonomic group of that species and used in the state where that species lives. The combination of toxicity and exposure shows that each of the pesticides "may affect" the species identified with that pesticide in Exhibit A.

101. This lawsuit does not cover combinations of pesticides and species for which effect determinations and ESA Section 7 consultations are already in progress, unless such consultations are geographically restricted, in which case this lawsuit includes those geographic areas not already covered by these consultations.

VI. Examples of Documented Pesticide Impacts On Particular Endangered And Threatened Species

102. Potential impacts due to pesticide exposures for particular endangered and threatened species are well documented. Again, for every species listed in Exhibit A, federal agency documents or peer-reviewed journal articles document pesticide impacts on these particular species. A few examples of the risks pesticides pose to these listed species are provided below.

103. Hoy and others (2002)[1] discuss endocrine-disrupting pesticides as possible causes of genital abnormalities in populations of male **Columbian white-tailed deer**.

104. FWS notes: "Pesticides (including herbicides) may pose a threat to amphibians, such as the **frosted flatwoods salamander**, whose permeable eggs and skin readily absorb substances from the surrounding aquatic or terrestrial environment (Duellman and Trueb 1986, pp. 199-200). Negative effects that commonly used pesticides and herbicides may have on amphibians include delayed metamorphosis, paralysis, reduced growth rate, and mortality (Bishop 1992, pp. 6769). Herbicides used near frosted flatwoods salamander breeding ponds may alter the density and species composition of vegetation surrounding a breeding site and reduce the number of potential sites for egg deposition, larval development, or shelter for migrating salamanders. Aerial spraying of herbicides over outdoor pond mesocosms (semifield approximations of ponds) has been shown to reduce zooplankton diversity, a food source for larval frosted flatwoods salamanders, and cause very high (68 to 100 percent) mortality in tadpoles and juvenile frogs (Relyea 2005, pp. 618-626). The potential for negative effects from pesticide and herbicide use in areas adjacent to breeding ponds would be reduced by avoiding aerial spraying (Tatum 2004, p. 1047)." *Endangered and Threatened Wildlife and Plants; Proposed*

[1] J.A. Hoy, R. Hoy, D. Seba, and T.H. Kerstetter, *Genital Abnormalities in White-tailed Deer (Odocoileus virginianus) in West-central Montana: Pesticide Exposure as a Possible Cause*, 23 J. Environ. Biol. 189 (2002).

Endangered Status for Reticulated Flatwoods Salamander; Proposed Designation of Critical Habitat for Frosted Flatwoods Salamander and Reticulated Flatwoods Salamander, 73 Fed. Reg. 54125, 54131 (September 18, 2008).

105. In a final rulemaking to designate critical habitat for **North American green sturgeon**, the FWS found that the "application of pesticides may adversely affect prey resources and water quality within the bays and estuaries. For example, in Willapa Bay and Grays Harbor, the use of carbaryl in association with aquaculture operations reduces the abundance and availability of burrowing ghost shrimp, an important prey species for green sturgeon (Moser and Lindley 2007; Dumbauld et al. 2008). In the San Francisco, San Pablo, and Suisun bays, several pesticides have been detected at levels exceeding national benchmarks for the protection of aquatic life (Domagalski et al. 2000). These pesticides pose a water quality issue and may affect the abundance and health of prey items as well as the growth and reproductive health of Southern DPS green sturgeon through bioaccumulation." 74 Fed. Reg. 52300 (October 9, 2009).

106. FWS has stated that the surviving population of the **Vermillion darter** is currently threatened by pesticides that wash into streams from runoff. *Final Rule to List the Vermillion Darter as Endangered*, 66 Fed. Reg. 59367 (Nov. 28, 2001). FWS cited to a study (Swann 2000) that attributed a past fish kill to pesticide runoff from urban use. *Id*.

107. In a five-year review for the **Alabama cave shrimp** conducted by the FWS, it was stated that urbanization may have caused contamination of the aquifers containing this species. FWS states that groundwater contamination may result from "sewage leakage, industrial contaminants, road and highway runoff, toxic spills, pesticides, and siltation" and that this is likely the greatest threat to populations of this shrimp.

VIII. EPA's Control Over And Involvement With Pesticides At Issue In Consultation Claims

108. All of the following pesticides/pesticide groups (also listed in Exhibit A) are currently registered for use by EPA: 1,3-Dichloropropene (Telone); 2,4-D, salts and esters; Acephate; Alachlor; Atrazine; Bensulide; Bromadiolone; Captan; Carbaryl; Chlorothalonil; Chlorpyrifos; Diazinon; Dicamba and salts; Diuron; Ethoprop; MCPA salts and esters; Methomyl; Metolachlor and isomers; Metribuzin; Naled; Oxydemeton-Methyl; Oxyfluorfen; Paraquat Dichloride; Pendimethalin; Phorate;

Phosmet; Propanil; Propargite; S,S,S-tributyl phosphorotrithioate (Tribufos or DEF); Thiobencarb; and Trifluralin.

109. Details on EPA's authorization, control over, and other involvement in each of these pesticides/pesticide groups is provided immediately below.

1,3-Dichloropropene[2]

110. Exhibit A lists endangered and threatened species for which 1,3-dichloropropene is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

111. 1,3-dichloropropene is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of 1,3-dichloropropene are likely to exceed the LOCs for the following taxonomic groups: fish, amphibians, and crustaceans.

112. 1,3-dichloropropene is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

113. EPA "affirmatively authorized" the use of 1,3-dichloropropene when it issued a Reregistration Eligibility Decision in September of 1998. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's

[2] The current EPA Case Number and EPA PC Code for 1,3-dichloropropene are 0328, 029001. The Case Numbers and PC Codes for each pesticide group/pesticide at issue in this case can also be found at pages 99-100 of Exhibit A.

registration of 1,3-dichloropropene is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

114. The RED for 1,3-dichloropropene states: "The results of the GENEEC model indicate that aquatic acute high risk, restricted use, and endangered species levels of concern are exceeded for freshwater fish at application rates equal to or above 177 lbs a.i./acre. . . . The results indicate that aquatic acute high risk, restricted use, and endangered species levels of concern are exceeded for freshwater invertebrates at application rates equal to or above 177 lbs a.i./acre from the GENEEC model."

115. Since this authorization of the use of 1,3-dichloropropene, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3988 (last visited April 30, 2013); http://www.epa.gov/oppsrrd1/reregistration/telone/ (last visited May 7, 2013).

116. EPA's subsequent actions on 1,3-dichloropropene show that its registration is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over 1,3-dichloropropene regulation. Thus, EPA's continued discretionary control and involvement in the registration of 1,3-dichloropropene is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

117. In April of 2010, EPA issued "Soil Fumigant Risk Assessments."

118. In 2008, EPA issued an Updated RED Fact Sheet for 1,3-dichloropropene, which includes additional mitigation measures beyond those in the 1998 RED.

119. On September 16, 2008, EPA completed product reregistration for 1,3-dichloropropene. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label

System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

120. Specifically, EPA's online Pesticide Product Label System lists several products containing 1,3-dichloropropene:

Product Name	Approved Date	Registration Number
PIC-CLOR 60 EC	November 28, 2007	8536-43
TRI-FORM 60 EC	March 01, 2013	11220-33
TRI-FORM 40 EC	March 01, 2013	11220-34
INLINE	July 30, 2012	62719-348
TRI-FORM 60	February 26, 2008	11220-15
PIC-CLOR 15	June 21, 2007	8536-21
PIC-CLOR 60	February 21, 2008	8536-8
PIC-CLOR 40 EC	November 30, 2007	8536-42
TELONE C-15	December 21, 2011	11220-20
TELONE C-17	December 21, 2011	62719-12
TELONE C-35	December 21, 2011	62719-302
PIC-CLOR 30	December 21, 2011	8536-22
TRI-FORM 30	December 21, 2011	11220-21
TRI-FORM 35	December 21, 2011	11220-22
TELONE II	February 6, 2006	62719-32
CORDON TECHNICAL	March 28, 2011	62719-641
TELONE EC	February 6, 2006	62719-321
CORDON	February 1, 2008	62719-363
TRI-CAL TRILONE II SOIL FUMIGANT	December 19, 2007	11220-1
TELONE TECHNICAL	October 16, 2008	62719-341

121. Upon information and belief, these registered products account for all of the EPA authorized use of 1,3-dichloropropene in the U.S.

122. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing 1,3-dichloropropene

constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

123. EPA's registration of products containing 1,3-dichloropropene are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

124. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by 1,3-dichloropropene. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by 1,3-dichloropropene. The list of species that may be affected by 1,3-dichloropropene is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

125. For example, 1,3-dichloropropene may affect the Santa Cruz long-toed salamander, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by 1,3-dichloropropene.

126. In the recovery plan for the Santa Cruz long-toed salamander, FWS explains: "Pesticide use for agricultural and mosquito control purposes remains a concern." In addition, in the 1989 Biological Opinion, FWS found that many pesticides can adversely affect the salamander. 1,3-dichloropropene is used as a component in formulations for soil fumigants.

127. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by 1,3-dichloropropene. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by 1,3-dichloropropene in the future.

128. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of 1,3-dichloropropene, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, 1,3-dichloropropene may affect the species identified in Exhibit A, as well as their designated critical habitat.

129. EPA's failure to ensure that 1,3-dichloropropene does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by 1,3-dichloropropene. For example, EPA's failure to consult on 1,3-dichloropropene may impair recovery of species impacted by 1,3-dichloropropene and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on 1,3-dichloropropene is necessary to ensure that Plaintiffs' members' interests in the species affected by 1,3-dichloropropene are preserved and remain free from injury.

130. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in 1,3-dichloropropene, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

131. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which 1,3-dichloropropene affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on 1,3-dichloropropene with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of 1,3-dichloropropene.

132. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to 1,3-dichloropropene do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

2,4-D, Salts and Esters[3]

133. Exhibit A lists endangered and threatened species for which the 2,4-D, salts and esters are known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

134. The 2,4-D, salts and esters are known endocrine disrupters. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

135. The 2,4-D, salts and esters are pesticides for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of the 2,4-D, salts and esters are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

136. The 2,4-D, salts and esters are pesticides that are "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

137. The USGS has detected 2,4-D, salts and esters in dozens of watersheds across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

138. EPA "affirmatively authorized" the use of 2,4-D, salts and esters when it issued a Reregistration Eligibility Decision in June of 2005. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only

[3] 2,4-D, salts and esters refers to the following, which also shows the current EPA Case Number and EPA PC Code: 2,4-D (0073, 030001); 2,4-D, 2-ethylhexyl ester (0073, 030063); 2,4-D, butoxyethanol ester (0073, 030053); 2,4-D, choline salt (0073, 051505); 2,4-D, diethanolamine salt (0073, 030016); 2,4-D, dimethylamine salt (0073, 030019); 2,4-D, isooctyl ester (0073, 030064); 2,4-D, isopropyl ester (0073, 030066); 2,4-D, isopropylamine salt (0073, 030025); 2,4-D, methyamine salt (0073, 030027); 2,4-D, sodium salt (0073, 030004); 2,4-D, triisopropanolamine salt (0073, 030035).

register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of 2,4-D, salts and esters is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

139. In its 2005 RED for 2,4-D, EPA states: "The Agency's level of concern for endangered and threatened freshwater fish and invertebrates, estuarine invertebrates, birds, mammals, aquatic vascular plants, and terrestrial non-target plants is exceeded for the use of 2,4-D."

140. Since this authorization of the use of 2,4-D, salts and esters, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:512 / (last visited April 26, 2013); http://www.epa.gov/oppsrrd1/reregistration/24d/ (last visited May 7, 2013).

141. EPA's subsequent actions on the 2,4-D, salts and esters show that registration of these pesticides is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over 2,4-D, salts and esters regulation. Thus, EPA's continued discretionary control and involvement in the registration of 2,4-D, salts and esters is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

142. In September of 2008 and 2009, EPA issued tolerances for the 2,4-D, salts and esters.

143. On March 16, 2012, EPA completed product reregistration for the 2,4-D, salts and esters. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

144. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing 2,4-D, salts and esters are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

145. EPA's final actions on products containing 2,4-D, salts and esters do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

146. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by 2,4-D, salts and esters. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by 2,4-D, salts and esters. The list of species that may be affected by 2,4-D, salts and esters is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

147. For example, 2,4-D, salts and esters may affect the Puerto Rican crested toad, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by 2,4-D, salts and esters.

148. In the Recovery Plan for the Puerto Rican crested toad, the FWS explains: "Ponds in Quebradillas are found in areas used for cattle since the 1950's. These areas are regularly sprayed with herbicides and chemical fertilizers, which could affect the toads when rain and runoff from pastures fill cattle troughs constructed to take advantage of natural drainage channels. These cattle troughs are used by the toads for breeding." In addition, in its 1989 Biological Opinion, FWS found that the Puerto Rican crested toad may be adversely affected by numerous pesticides.

149. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by 2,4-D, salts and esters. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by 2,4-D, salts and esters in the future.

150. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of 2,4-D, salts and esters, which are pesticides that may harm endangered and threatened species and their habitats. As alleged in the Complaint, 2,4-D, salts and esters may affect the species identified in Exhibit A, as well as their designated critical habitat.

151. EPA's failure to ensure that 2,4-D, salts and esters do not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by 2,4-D, salts and esters. For example, EPA's failure to consult on 2,4-D, salts and esters may impair recovery of species impacted by 2,4-D, salts and esters and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on 2,4-D, salts and esters is necessary to ensure that Plaintiffs' members' interests in the species affected by 2,4-D, salts and esters are preserved and remain free from injury.

152. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in 2,4-D, salts and esters, these pesticides could not be used and could not be negatively impacting the listed species named in Exhibit A and their habitats.

153. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which the 2,4-D, salts and esters affect listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on 2,4-D,

salts and esters with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of 2,4-D, salts and esters.

154. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to 2,4-D, salts and esters do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Acephate[4]

155. Exhibit A lists endangered and threatened species for which acephate is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

156. Acephate is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of acephate are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles.

157. Acephate is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: crustaceans, insects, fish, and amphibians. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

158. In its 2006 RED for acephate, EPA states: "Endangered species LOCs except for fish (estuarine and freshwater) and estuarine invertebrates are exceeded for all uses of acephate. In addition, LOCs are exceeded for endangered species of mammals, amphibians, birds, reptiles, insects, and freshwater invertebrates for the degradate methamidophos formed from all uses of acephate."

[4] The current EPA Case Number and EPA PC Code for acephate are 0042, 103301.

159. EPA "affirmatively authorized" the use of acephate when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of acephate is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

160. Since this authorization of the use of acephate, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/acephate/ (last visited May 7, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:978 (last visited April 30, 2013).

161. EPA's subsequent actions on acephate show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over acephate regulation. Thus, EPA's continued discretionary control and involvement in the registration of acephate is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

162. In September of 2011, EPA issued a cancellation order for acephate.

163. In September of 2010, EPA issued tolerances for acephate.

164. On October 14, 2008, EPA completed product reregistration for acephate. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System,

available at http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

165. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing acephate are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

166. EPA's final actions on products containing acephate do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

167. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by acephate. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by acephate. The list of species that may be affected by acephate is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

168. For example, acephate may affect the Mississippi gopher frog (dusky gopher frog), and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by acephate.

169. In the rule listing the Mississippi gopher frog, FWS cites numerous studies recognizing the multiple impacts pesticides have on frogs throughout their life cycle. *Final Rule to List the Mississippi Gopher Frog Distinct Population Segment of the Dusky Gopher Frog as Endangered*, 66 Fed. Reg. 62993 (December 4, 2001). FWS explains: "Pesticides and herbicides pose a threat to amphibians such as the Mississippi gopher frog, because their permeable eggs and skin readily absorb

substances from the surrounding aquatic or terrestrial environment (Duellman and Trueb 1986)." In addition, in the Fact Sheet for the frog, FWS explains: "Some chemicals used as herbicides and pesticides are known to be toxic to aquatic amphibians. Since there is only one remaining pond for the Mississippi gopher frog population, any sedimentation or toxic run-off that reaches the pond could destroy the pond and injure or kill tadpoles and adult frogs."

170. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by acephate. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by acephate in the future.

171. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of acephate, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, acephate may affect the species identified in Exhibit A, as well as their designated critical habitat.

172. EPA's failure to ensure that acephate does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by acephate. For example, EPA's failure to consult on acephate may impair recovery of species impacted by acephate and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on acephate is necessary to ensure that Plaintiffs' members' interests in the species affected by acephate are preserved and remain free from injury.

173. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in acephate, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

174. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which acephate affects listed species and their habitats and, if necessary, would suggest

reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on acephate with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of acephate.

175. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to acephate do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Alachlor[5]

176. Exhibit A lists endangered and threatened species for which alachlor is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

177. Alachlor is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

178. Alachlor is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: amphibians, crustaceans, and fish. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

179. The USGS has detected alachlor in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

[5] The current EPA Case Number and EPA PC Code for alachlor are 0063, 090501.

180. In its 2006 RED for alachlor, EPA states: "Endangered species LOCs are exceeded for terrestrial plants, birds and small mammals from the agricultural uses of alachlor. Acute risks to endangered freshwater invertebrates and aquatic vascular plants are exceeded for all crop uses except for the typical use rate on corn (1.1 lb ai/A). Chronic levels of concern for endangered species are exceeded for fish and aquatic invertebrate reproduction for all use rates, except for corn and the typical use rate on sorghum."

181. EPA "affirmatively authorized" the use of alachlor when it issued a Reregistration Eligibility Decision in December of 1998. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of alachlor is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

182. Since this authorization of the use of alachlor, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on this webpage maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:1044 (last visited April 30, 2013).

183. EPA's subsequent actions on alachlor show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over alachlor regulation. Thus, EPA's continued discretionary control and involvement in the registration of alachlor is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

184. On December 21, 2005, EPA completed product reregistration for alachlor. *See* http://www.epa.gov/pesticides reregistration/product-rereg-schedule.htm (last visited April 26, 2013).

Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

185. Specifically, EPA's online Pesticide Product Label System lists several active products containing alachlor:

Product Name	Approved Date	Registration Number
LASSO 94% STABILIZED TECHNICAL	November 30, 2009	524-316
MICRO-TECH HERBICIDE	September 27, 2007	524-344
LASSO HERBICIDE	August 17, 2009	524-314
BULLET HERBICIDE	August 17, 2009	524-418
LARIAT HERBICIDE	August 17, 2009	524-329

186. Upon information and belief, these registered products account for all of the EPA authorized use of alachlor in the U.S.

187. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing alachlor constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

188. EPA's registration of products containing alachlor are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

189. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by alachlor. Plaintiffs' members derive professional, aesthetic, spiritual,

recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by alachlor. The list of species that may be affected by alachlor is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

190. For example, alachlor may affect the Alabama sturgeon, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, her efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by alachlor.

191. In the rule designating critical habitat for the Alabama sturgeon, the FWS explains that the Alabama sturgeon requires high water quality and states: "Other factors that can potentially alter water quality are droughts and periods of low flow, non-point source runoff from adjacent land surfaces (e.g., excessive amounts of nutrients, pesticides, and sediment) . . . . This could be particularly harmful during drought conditions when flows are depressed and pollutants are more concentrated. Therefore, adequate water quality, quantity, and flow are essential for normal behavior, growth, and viability during all life stages of the sturgeon, including embryo development and hatching, and larval and juvenile development."

192. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by alachlor. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by alachlor in the future.

193. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of alachlor, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, alachlor may affect the species identified in Exhibit A, as well as their designated critical habitat.

194. EPA's failure to ensure that alachlor does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by alachlor. For example, EPA's failure to consult on alachlor may impair recovery of species impacted by alachlor and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare

animals, such as by limiting their ability to observe the species. Consultation on alachlor is necessary to ensure that Plaintiffs' members' interests in the species affected by alachlor are preserved and remain free from injury.

195. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in alachlor, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

196. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which alachlor affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on alachlor with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of alachlor.

197. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to alachlor do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Atrazine[6]

198. Exhibit A lists endangered and threatened species for which atrazine is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

199. Atrazine is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species,

[6] The current EPA Case Number and EPA PC Code for atrazine are 0062, 080803.

and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of atrazine are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

200. Atrazine is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, mollusks, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

201. Atrazine is present across the country in concentrations harmful to species. The USGS has detected atrazine in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. It is the most commonly detected pesticide in U.S. waters with about 75% of streamwater and 40% of groundwater containing atrazine. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

202. Atrazine is a known endocrine disrupter. Endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species. At just 0.1 ppb – far below the level established by EPA as safe for aquatic organisms – atrazine can alter the development of sex characteristics in male frogs. As a result, studies have concluded that due to the pervasive nature of atrazine at levels that can disrupt sexual development, aquatic environments across the country are at risk.

203. In its 2006 RED for atrazine, EPA states: "Endangered species LOCs are exceeded for terrestrial plants, birds and small mammals from the agricultural uses of atrazine. Acute risks to endangered freshwater invertebrates and aquatic vascular plants are exceeded for all crop uses except for the typical use rate on corn (1.1 lb ai/A). Chronic levels of concern for endangered species are exceeded for fish and aquatic invertebrate reproduction for all use rates, except for corn and the typical use rate on sorghum."

204. EPA "affirmatively authorized" the use of atrazine when it issued a Reregistration Eligibility Decision in April of 2006. As set forth above, EPA has discretion to influence or change

registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of atrazine is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

205. Since this authorization of the use of atrazine, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/atrazine/ (last visited April 26, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:1273 (last visited April 30, 2013).

206. EPA's subsequent actions on atrazine show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over atrazine regulation. Thus, EPA's continued discretionary control and involvement in the registration of atrazine is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

207. In September of 2011, EPA issued tolerances for atrazine.

208. On June 26, 2008, EPA completed product reregistration for atrazine. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

209. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C.

§ 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing atrazine are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

210. EPA's final actions on products containing atrazine do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

211. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by atrazine. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by atrazine. The list of species that may be affected by atrazine is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

212. For example, atrazine may affect the arroyo toad, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by atrazine.

213. In the rule designating critical habitat for the arroyo toad, the FWS explains that "pesticides and herbicides" are threats to the toads, which can be found in agricultural fields. *Designation of Critical Habitat for the Arroyo Toad*, 66 Fed. Reg. 9414, 9415 (Feb. 7, 2001). FWS noted that these habitats are probably sinks where mortality exceeds reproduction over the long term due to "pesticide and fertilizer applications." FWS went on to state that the use of pesticides and herbicides within or adjacent to arroyo toad habitat may cause adverse impacts.

214. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by atrazine. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by atrazine in the future.

215. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of atrazine, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, atrazine may affect the species identified in Exhibit A, as well as their designated critical habitat.

216. EPA's failure to ensure that atrazine does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by atrazine. For example, EPA's failure to consult on atrazine may impair recovery of species impacted by atrazine and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on atrazine is necessary to ensure that Plaintiffs' members' interests in the species affected by atrazine are preserved and remain free from injury.

217. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in atrazine, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

218. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which atrazine affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on atrazine with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of atrazine.

219. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to atrazine do not affect listed species and Plaintiffs' members' cognizable interests in

these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Bensulide[7]

220. Exhibit A lists endangered and threatened species for which bensulide is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

221. Bensulide is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of bensulide are likely to exceed the LOCs for the following taxonomic groups: fish, amphibians, and crustaceans.

222. Bensulide is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

223. In its 2006 RED for bensulide, EPA states: "In general, the acute levels of concern for bensulide are exceeded for freshwater fish, including those for threatened or endangered species, and for freshwater invertebrates."

224. EPA "affirmatively authorized" the use of bensulide when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of

[7] The current EPA Case Number and EPA PC Code for bensulide are 2035, 009801.

bensulide is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

225. Since this authorization of the use of bensulide, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/bensulide/ (last visited May 7, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:1407 (last visited April 30, 2013).

226. EPA's subsequent actions on bensulide show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over bensulide regulation. Thus, EPA's continued discretionary control and involvement in the registration of bensulide is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

227. On October 12, 2006, EPA completed product reregistration for bensulide. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

228. Specifically, EPA's online Pesticide Product Label System lists several active products containing bensulide:

Product Name	**Approved Date**	**Registration Number**
PREFAR 4-E HERBICIDE	March 29, 2011	10163-200
BETASAN 12.5 G	March 29, 2011	10163-198
BETASAN 3.6G	March 29, 2011	10163-199
BETASAN 4-E SELECTIVE HERBICIDE	March 29, 2011	10163-196
BETASAN 7-G SELECTIVE	March 29, 2011	10163-204

HERBICIDE		
TECHNICAL BETASAN	October 27, 2009	10163-312
BETAMEC 4 PRE-EMERGENCE GRASS KILLER	September 4, 2009	2217-696
ANDERSON'S GOOSE/CRABGRASS CONTROL	September 22, 2006	9198-176
ANDERSON'S WEEDGRASS PREVENTER	August 8, 2008	9198-172
HANDY SPRAY BETASAN CRABGRASS PREVENTER	August 8, 2005	10163-205

229. Upon information and belief, these registered products account for nearly all of the EPA authorized use of bensulide in the U.S. Three additional products were registered prior to January of 2005 and are not included here.

230. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing bensulide constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

231. EPA's registration of products containing bensulide are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

232. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by bensulide. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in

these areas and may be impacted by bensulide. The list of species that may be affected by bensulide is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

233. For example, bensulide may affect the shortnose sturgeon, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by bensulide.

234. In the recovery plan for the shortnose sturgeon, FWS explains: "Contaminants, including toxic metals, polychlorinated aromatic hydrocarbons (PAHs), pesticides, and polychlorinated biphenyls (PCBs) can have substantial deleterious effects on aquatic life including production of acute lesions, growth retardation, and reproductive impairment (Cooper 1989; Sindermann 1994). Ultimately, toxins introduced to the water column become associated with the benthos and can be particularly harmful to benthic organisms (Varanasi 1992) like sturgeon."

235. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by bensulide. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by bensulide in the future.

236. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of bensulide, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, bensulide may affect the species identified in Exhibit A, as well as their designated critical habitat.

237. EPA's failure to ensure that bensulide does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by bensulide. For example, EPA's failure to consult on bensulide may impair recovery of species impacted by bensulide and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on bensulide is necessary to ensure that Plaintiffs' members' interests in the species affected by bensulide are preserved and remain free from injury.

238. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in bensulide, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

239. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which bensulide affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on bensulide with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of bensulide.

240. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to bensulide do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Bromadiolone[8]

241. Exhibit A lists endangered and threatened species for which bromadiolone is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

242. Bromadiolone is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of bromadiolone are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, and reptiles.

[8] The current EPA Case Number and EPA PC Code for bromadiolone are 2760, 112001.

243. Bromadiolone is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

244. EPA "affirmatively authorized" the use of bromadiolone when it issued a Reregistration Eligibility Decision in July of 1998. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of bromadiolone is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

245. Since this authorization of the use of bromadiolone, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on this webpage maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:1587 (last visited April 30, 2013).

246. EPA's subsequent actions on bromadiolone show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over bromadiolone regulation. Thus, EPA's continued discretionary control and involvement in the registration of bromadiolone is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

247. In May of 2008, EPA issued a revised RED Fact Sheet for bromadiolone and a Risk Mitigation Decision Document (that was later revised in June of 2008). This final risk mitigation

decision represents the Agency's final decision on the reregistration eligibility of rodenticide products containing brodifacoum, bromadiolone, bromethalin, chlorophacinone, cholecalciferol, difethialone, diphacinone (and its sodium salt), warfarin (and its sodium salt), and zinc phosphide.

248. In February of 2013, EPA issued a Notice of intent to cancel certain rodenticide bait products.

249. On June 29, 2011, EPA completed product reregistration for bromadiolone. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

250. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing bromadiolone are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

251. EPA's final actions on products containing bromadiolone do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

252. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by bromadiolone. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by bromadiolone. The list of species that may be affected by bromadiolone is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

253. For example, bromadiolone may affect the San Joaquin kit fox, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by bromadiolone.

254. In "Potential Risks of Nine Rodenticides to Birds and Non Target Mammals: a Comparative Approach," the EPA explained: "In California, second-generation anticoagulants were detected in 71 to 84% of the 106 bobcats, mountain lions, and San Joaquin kit foxes analyzed." In addition, in the 1993 Biological Opinion, the FWS explained that the kit fox may be exposed to bromadiolone because it occupies urban and quasi-urban settings. The FWS specified reasonable and prudent alternatives to avoid jeopardy to the San Joaquin kit fox.

255. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by bromadiolone. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by bromadiolone in the future.

256. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of bromadiolone, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, bromadiolone may affect the species identified in Exhibit A, as well as their designated critical habitat.

257. EPA's failure to ensure that bromadiolone does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by bromadiolone. For example, EPA's failure to consult on bromadiolone may impair recovery of species impacted by bromadiolone and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on bromadiolone is necessary to ensure that Plaintiffs' members' interests in the species affected by bromadiolone are preserved and remain free from injury.

258. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in bromadiolone, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

259. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which bromadiolone affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on bromadiolone with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of bromadiolone.

260. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to bromadiolone do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Captan[9]

261. Exhibit A lists endangered and threatened species for which captan is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

262. Captan is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of captan are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

[9] The current EPA Case Number and EPA PC Code for captan are 0120, 081301.

263. Captan is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

264. EPA "affirmatively authorized" the use of captan when it issued a Reregistration Eligibility Decision in November of 2004. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of captan is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

265. Since this authorization of the use of captan, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/captan/ (last visited May 7, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:1701 (last visited April 30, 2013).

266. EPA's subsequent actions on captan show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over captan regulation. Thus, EPA's continued discretionary control and involvement in the registration of captan is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

267. In June of 2007, EPA issued proposed tolerances for captan.

268. On September 20, 2007, EPA completed product reregistration for captan. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

269. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing captan are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

270. EPA's final actions on products containing captan do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

271. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by captan. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by captan. The list of species that may be affected by captan is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

272. For example, captan may affect the Cape Fear shiner, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by captan.

273. As the FWS explained in its Fact Sheet for the Cape Fear shiner: "The Cape Fear shiner is sensitive to chemicals found in fertilizers, pesticides, and other sources that pollute water. These and

other pollutants include water runoff from farms, municipalities and businesses and their associated infrastructure."

274. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by captan. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by captan in the future.

275. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of captan, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, captan may affect the species identified in Exhibit A, as well as their designated critical habitat.

276. EPA's failure to ensure that captan does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by captan. For example, EPA's failure to consult on captan may impair recovery of species impacted by captan and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on captan is necessary to ensure that Plaintiffs' members' interests in the species affected by captan are preserved and remain free from injury.

277. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in captan, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

278. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which captan affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on captan with the Service,

as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of captan.

279. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to captan do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Carbaryl[10]

280. Exhibit A lists endangered and threatened species for which carbaryl is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

281. Carbaryl is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

282. Carbaryl is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of carbaryl are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles.

283. Carbaryl is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, mollusks, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

[10] The current EPA Case Number and EPA PC Code for carbaryl are 0080, 056801.

284. The USGS has detected carbaryl in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

285. EPA "affirmatively authorized" the use of carbaryl when it issued a Reregistration Eligibility Decision in September of 2007. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of carbaryl is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

286. Since this authorization of the use of carbaryl, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/carbaryl/ (last visited April 26, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:1736 (last visited April 30, 2013).

287. EPA's subsequent actions on carbaryl show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over carbaryl regulation. Thus, EPA's continued discretionary control and involvement in the registration of carbaryl is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

288. In August of 2008, EPA issued an Amended RED for carbaryl.

289. In September and December of 2009, EPA issued cancellation orders for carbaryl.

290. On October 28, 2009, EPA completed product reregistration for carbaryl. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013).

Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

291. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing carbaryl are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

292. EPA's final actions on products containing carbaryl do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

293. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by carbaryl. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by carbaryl. The list of species that may be affected by carbaryl is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

294. For example, carbaryl may affect the mountain yellow-legged frog, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by carbaryl.

295. Peer-reviewed scientific studies have implicated pesticides in the decline of mountain yellow-legged frogs. *See, e.g.*, Carlos Davidson, et al., *Spatial Tests of the Pesticide Drift, Habitat Destruction, UV-B, and Climate Change Hypotheses for California Amphibian Declines*, Conservation Biology (6):1588-1601 (2002).

296. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by carbaryl. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by carbaryl in the future.

297. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of carbaryl, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, carbaryl may affect the species identified in Exhibit A, as well as their designated critical habitat.

298. EPA's failure to ensure that carbaryl does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by carbaryl. For example, EPA's failure to consult on carbaryl may impair recovery of species impacted by carbaryl and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on carbaryl is necessary to ensure that Plaintiffs' members' interests in the species affected by carbaryl are preserved and remain free from injury.

299. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in carbaryl, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

300. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which carbaryl affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on carbaryl with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of carbaryl.

301. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to carbaryl do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Chlorothalonil[11]

302. Exhibit A lists endangered and threatened species for which chlorothalonil is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

303. Chlorothalonil is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

304. Chlorothalonil is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of chlorothalonil are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

305. Chlorothalonil is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

306. The USGS has detected chlorothalonil in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

[11] The current EPA Case Number and EPA PC Code for chlorothalonil are 0097, 081901.

307. In its 1999 RED for chlorothalonil, EPA states: "The registered uses of chlorothalonil may adversely affect endangered species of birds (chronically), mammals (chronically), freshwater fish (acutely and chronically), freshwater invertebrates (acutely) and aquatic plants. Mollusks which may be at risk include freshwater mussels (a phylum that includes numerous freshwater endangered species)."

308. EPA "affirmatively authorized" the use of chlorothalonil when it issued a Reregistration Eligibility Decision in April of 1999. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of chlorothalonil is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

309. Since this authorization of the use of chlorothalonil, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/chlorothalonil/ (last visited April 26, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:1817 (last visited April 30, 2013).

310. EPA's subsequent actions on chlorothalonil show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over chlorothalonil regulation. Thus, EPA's continued discretionary control and involvement in the registration of chlorothalonil is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

311. In March of 2012, EPA began registration review for chlorothalonil.

312. On March 11, 2009, EPA completed product reregistration for chlorothalonil. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

313. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing chlorothalonil are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

314. EPA's final actions on products containing chlorothalonil do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

315. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by chlorothalonil. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by chlorothalonil. The list of species that may be affected by chlorothalonil is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

316. For example, chlorothalonil may affect the blue shiner, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by chlorothalonil.

317. In the recovery plan for the blue shiner, FWS explains: "Any actions that would likely affect water quality or quantity could affect the blue shiner. These include: timber cutting, road, bridge, or dam construction, instream gravel mining, and pesticide spraying."

318. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by chlorothalonil. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by chlorothalonil in the future.

319. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of chlorothalonil, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, chlorothalonil may affect the species identified in Exhibit A, as well as their designated critical habitat.

320. EPA's failure to ensure that chlorothalonil does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by chlorothalonil. For example, EPA's failure to consult on chlorothalonil may impair recovery of species impacted by chlorothalonil and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on chlorothalonil is necessary to ensure that Plaintiffs' members' interests in the species affected by chlorothalonil are preserved and remain free from injury.

321. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in chlorothalonil, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

322. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which chlorothalonil affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect

Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on chlorothalonil with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of chlorothalonil.

323. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to chlorothalonil do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Chlorpyrifos[12]

324. Exhibit A lists endangered and threatened species for which chlorpyrifos is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

325. Chlorpyrifos is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

326. Chlorpyrifos is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of chlorpyrifos are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles.

327. Chlorpyrifos is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases

[12] The current EPA Case Number and EPA PC Code for chlorpyrifos are 0100, 059101.

that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

328. The USGS has detected chlorpyrifos in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

329. EPA "affirmatively authorized" the use of chlorpyrifos when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of chlorpyrifos is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

330. Since this authorization of the use of chlorpyrifos, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/chlorpyrifos/ (last visited April 26, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:1822 (last visited April 30, 2013).

331. EPA's subsequent actions on chlorpyrifos show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over chlorpyrifos regulation. Thus, EPA's continued discretionary control and involvement in the registration of chlorpyrifos is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

332. In September of 2011, EPA issued tolerances for chlorpyrifos.

333. In July of 2012, EPA issued a Spray Drift Mitigation Decision for chlorpyrifos.

334. On January 10, 2008, EPA completed product reregistration for chlorpyrifos. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

335. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing chlorpyrifos are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

336. EPA's final actions on products containing chlorpyrifos do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

337. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by chlorpyrifos. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by chlorpyrifos. The list of species that may be affected by chlorpyrifos is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

338. For example, chlorpyrifos may affect the American burying beetle, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by chlorpyrifos.

339. In its factsheet for the American burying beetle, FWS explains: "Widespread use of pesticides may have caused local populations to disappear."

340. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by chlorpyrifos. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by chlorpyrifos in the future.

341. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of chlorpyrifos, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, chlorpyrifos may affect the species identified in Exhibit A, as well as their designated critical habitat.

342. EPA's failure to ensure that chlorpyrifos does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by chlorpyrifos. For example, EPA's failure to consult on chlorpyrifos may impair recovery of species impacted by chlorpyrifos and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on chlorpyrifos is necessary to ensure that Plaintiffs' members' interests in the species affected by chlorpyrifos are preserved and remain free from injury.

343. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in chlorpyrifos, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

344. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which chlorpyrifos affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted,

Plaintiffs' interests will continue to be injured by EPA's failure to consult on chlorpyrifos with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of chlorpyrifos.

345. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to chlorpyrifos do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Diazinon[13]

346. Exhibit A lists endangered and threatened species for which diazinon is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

347. Diazinon is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

348. Diazinon is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of diazinon are likely to exceed the LOCs for the following taxonomic groups: birds, fish, amphibians, mollusks, crustaceans, and reptiles.

349. Diazinon is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

[13] The current EPA Case Number and EPA PC Code for diazinon are 0238, 057801.

350. The USGS has detected diazinon in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

351. EPA "affirmatively authorized" the use of diazinon when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of diazinon is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

352. Since this authorization of the use of diazinon, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/diazinon/ (last visited April 26, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2086 (last visited April 30, 2013).

353. EPA's subsequent actions on diazinon show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over diazinon regulation. Thus, EPA's continued discretionary control and involvement in the registration of diazinon is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

354. In June of 2008, EPA began reregistration review for diazinon.

355. In July of 2007, EPA issued a product cancellation order for diazinon.

356. On July 16, 2007, EPA completed product reregistration for diazinon. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

357. Specifically, EPA's online Pesticide Product Label System lists several active products containing diazinon:

Product Name	Approved Date	Registration Number
DIAZINON AG500 INSECTICIDE	February 14, 2012	5905-248
DREXEL DIAZINON INSECTICIDE	December 7, 2006	19713-91
DIAZINON 50WP INSECTICIDE	December 7, 2006	19713-492
DIAZINON AG 500	August 2, 2011	66222-9
DIAZINON AG600	June 7, 2011	66222-103
DIAZINON 50W	April 29, 2011	66222-10
DREXEL DIAZINON TECHNICAL AG	December 7, 2006	19713-523
CORATHON	March 3, 2009	11556-148
DIAZOL DIAZINON TECHNICAL STABILIZED AG	April 4, 2008	11678-61
DIAZOL(DIAZINON) STABILIZED OIL CONCENTRATE AG	June 5, 2006	11678-63

358. Upon information and belief, these registered products account for all of the EPA authorized use of diazinon in the U.S, excluding cattle ear tags that are unlikely to affect endangered species.

359. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the

environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing diazinon constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

360. EPA's registration of products containing diazinon are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

361. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by diazinon. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by diazinon. The list of species that may be affected by diazinon is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

362. For example, diazinon may affect the southwestern willow flycatcher, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by diazinon.

363. In the rule listing the southwestern willow flycatcher, FWS explains: "The southwestern willow flycatcher's preference for, and former abundance in, floodplain areas that are now largely agricultural may indicate a potential threat from pesticides. Where flycatcher populations remain, they are sometimes in proximity to agricultural areas, with the associated pesticides and herbicides. Without appropriate precautions, these agents may potentially affect the southwestern willow flycatcher through direct toxicity or effects on their insect food base." *Final Rule Determining Endangered Status for the Southwestern Willow Flycatcher*, 60 Fed. Reg. 10694, 10713 (Feb. 27, 1995).

364. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by diazinon. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by diazinon in the future.

365. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of diazinon, which is a pesticide

that may harm endangered and threatened species and their habitats. As alleged in the Complaint, diazinon may affect the species identified in Exhibit A, as well as their designated critical habitat.

366. EPA's failure to ensure that diazinon does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by diazinon. For example, EPA's failure to consult on diazinon may impair recovery of species impacted by diazinon and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on diazinon is necessary to ensure that Plaintiffs' members' interests in the species affected by diazinon are preserved and remain free from injury.

367. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in diazinon, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

368. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which diazinon affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on diazinon with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of diazinon.

369. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to diazinon do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs'

injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Dicamba and Salts[14]

370. Exhibit A lists endangered and threatened species for which dicamba and salts are known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

371. Dicamba and salts are pesticides for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of dicamba and salts are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, and reptiles.

372. The dicamba and salts are pesticides that are "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

373. The USGS has detected dicamba and salts in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

374. EPA "affirmatively authorized" the use of dicamba and salts when it issued a Reregistration Eligibility Decision in June of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the

[14] Dicamba and salts refers to the following, which also shows the current EPA Case Number and EPA PC Code: dicamba (0065, 029801); dicamba, diethanolamine salt (0065, 029803); dicamba, diglycolamine salt (0065, 128931); dicamba, dimethylamine salt (0065, 029802); dicamba, isopropylamine salt (0065, 128944); dicamba, potassium salt (0065, 129043), dicamba, sodium salt (0065, 029806).

environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of dicamba and salts is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

375. Since this authorization of the use of dicamba and salts, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2094 (last visited April 26, 2013); http://www.epa.gov/oppsrrd1/reregistration/dicamba/ (last visited May 8, 2013).

376. EPA's subsequent actions on the dicamba and salts show that these pesticides have an "ongoing and have a long-lasting effect," and that EPA has "continuing authority" over dicamba and salts regulation. Thus, EPA's continued discretionary control and involvement in the registration of dicamba and salts is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

377. In October of 2008 and June of 2009, EPA issued amended and corrected REDs for dicamba and salts.

378. In September of 2008, EPA issued tolerances for the dicamba and salts.

379. On September 27, 2011, EPA completed product reregistration for the dicamba and salts. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

380. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a

pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing dicamba and salts are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

381. EPA's final actions on products containing dicamba and salts do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

382. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by dicamba and salts. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by dicamba and salts. The list of species that may be affected by dicamba and salts is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

383. For example, dicamba and salts may affect the Shenandoah salamander, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by dicamba and salts.

384. In the recovery plan for the Shenandoah salamander, FWS explains: "Use of herbicides on powerline rights-of-way within the vicinity of Shenandoah salamander habitat may have some toxic effects on this species, along with other amphibians." FWS also explains that insecticides may reduce prey base for the salamander.

385. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by dicamba and salts. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by dicamba and salts in the future.

386. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of dicamba and salts, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, dicamba and salts may affect the species identified in Exhibit A, as well as their designated critical habitat.

387. EPA's failure to ensure that dicamba and salts does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by dicamba and salts. For example, EPA's failure to consult on dicamba and salts may impair recovery of species impacted by dicamba and salts and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on dicamba and salts is necessary to ensure that Plaintiffs' members' interests in the species affected by dicamba and salts are preserved and remain free from injury.

388. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in dicamba and salts, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

389. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which dicamba and salts affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on dicamba and salts with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of dicamba and salts.

390. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's

actions relating to dicamba and salts do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Diuron[15]

391. Exhibit A lists endangered and threatened species for which diuron is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

392. Diuron is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

393. Diuron is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of diuron are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

394. Diuron is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

395. The USGS has detected diuron in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

396. EPA "affirmatively authorized" the use of diuron when it issued a Reregistration Eligibility Decision in September of 2003. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the

[15] The current EPA Case Number and EPA PC Code for diuron are 0046, 035505.

environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of diuron is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

397. Since this authorization of the use of diuron, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/diuron/ (last visited April 26, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2220 (last visited April 30, 2013).

398. EPA's subsequent actions on diuron show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over diuron regulation. Thus, EPA's continued discretionary control and involvement in the registration of diuron is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

399. In September of 2009, EPA issued a product cancellation order.

400. In September of 2008, EPA issued tolerances for diuron.

401. On September 18, 2008, EPA completed product reregistration for diuron. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

402. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also

change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing diuron are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

403. EPA's final actions on products containing diuron do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

404. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by diuron. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by diuron. The list of species that may be affected by diuron is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

405. For example, diuron may affect the conservancy fairy shrimp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by diuron.

406. In the 5-year review of the conservancy fairy shrimp, FWS explains: "Because pesticides can be transported through the variety of methods . . ., and the high prevalence of pesticide use throughout the Central Valley, we believe it is likely that vernal pools containing Conservancy fairy shrimp have been exposed to harmful pesticides to some degree." And FWS lists "pesticide use" as a threat to the species.

407. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by diuron. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by diuron in the future.

408. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of diuron, which is a pesticide

that may harm endangered and threatened species and their habitats. As alleged in the Complaint, diuron may affect the species identified in Exhibit A, as well as their designated critical habitat.

409. EPA's failure to ensure that diuron does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by diuron. For example, EPA's failure to consult on diuron may impair recovery of species impacted by diuron and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on diuron is necessary to ensure that Plaintiffs' members' interests in the species affected by diuron are preserved and remain free from injury.

410. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in diuron, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

411. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which diuron affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on diuron with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of diuron.

412. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to diuron do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs'

injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Ethoprop[16]

413. Exhibit A lists endangered and threatened species for which ethoprop is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

414. Ethoprop is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of ethoprop are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

415. Ethoprop is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, crustaceans, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

416. The USGS has detected ethoprop in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

417. EPA "affirmatively authorized" the use of ethoprop when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of ethoprop is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

[16] The current EPA Case Number and EPA PC Code for ethoprop are 0106, 041101.

418. Since this authorization of the use of ethoprop, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/ethoprop/ (last visited May 9, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2301 (last visited April 30, 2013).

419. EPA's subsequent actions on ethoprop show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over ethoprop regulation. Thus, EPA's continued discretionary control and involvement in the registration of ethoprop is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

420. In September of 2098, EPA issued tolerances for ethoprop.

421. On December 13, 2006, EPA completed product reregistration for ethoprop. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

422. Specifically, EPA's online Pesticide Product Label System lists several active products containing ethoprop:

Product Name	**Approved Date**	**Registration Number**
ETHOPROP TECHNICAL	September 25, 2006	5481-9043
MOCAP 15% GRANULAR NEMATICIDE - INSECTICIDE	September 25, 2006	5481-9040
MOCAP 20% GRANULAR LOCK 'N LOAD NEMATICIDE-INSECTICIDE	September 25, 2006	5481-9042

MOCAP EC NEMATICIDE - INSECTICIDE	September 25, 2006	5481-9041

423. Upon information and belief, these registered products account for all of the EPA authorized use of ethoprop in the U.S.

424. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing ethoprop constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

425. EPA's registration of products containing ethoprop are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

426. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by ethoprop. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by ethoprop. The list of species that may be affected by ethoprop is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

427. For example, ethoprop may affect the Northern red-bellied cooter, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by ethoprop.

428. In the recovery plan for the northern red-bellied cooter, FWS explains: "Manipulation of aquatic vegetation, including herbicide use, may impact quality and quantity of food resources for the

turtle. The turtles may also be affected by use of insecticides and other chemicals in forestry, agriculture, or mosquito abatement." Ethoprop is a soil insecticide.

429. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by ethoprop. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by ethoprop in the future.

430. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of ethoprop, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, ethoprop may affect the species identified in Exhibit A, as well as their designated critical habitat.

431. EPA's failure to ensure that ethoprop does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by ethoprop. For example, EPA's failure to consult on ethoprop may impair recovery of species impacted by ethoprop and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on ethoprop is necessary to ensure that Plaintiffs' members' interests in the species affected by ethoprop are preserved and remain free from injury.

432. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in ethoprop, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

433. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which ethoprop affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on ethoprop with the Service,

as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of ethoprop.

434. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to ethoprop do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

MCPA, Salts and Esters[17]

435. Exhibit A lists endangered and threatened species for which MCPA, salts and esters are known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

436. MCPA, salts and esters are pesticides for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of MCPA, salts and esters are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, and reptiles.

437. The MCPA, salts and esters are pesticides that are "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, mollusks, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

[17] MCPA, salts and esters refers to the following, which also shows the current EPA Case Number and EPA PC Code: MCPA, 2-ethyl hexyl ester (0017, 030564); MCPA, dimethylamine salt (0017, 030516); MCPA, isooctyl ester (0017, 030563); MCPA (0017, 030501); MCPA, sodium salt (0017, 030502).

438. The USGS has detected MCPA, salts and esters in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

439. EPA "affirmatively authorized" the use of MCPA, salts and esters when it issued a Reregistration Eligibility Decision in September of 2004. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of MCPA, salts and esters is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

440. Since this authorization of the use of MCPA, salts and esters, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2703 (last visited April 26, 2013); http://www.epa.gov/oppsrrd1/reregistration/mcpa/ (last visited May 8, 2013).

441. EPA's subsequent actions on the MCPA, salts and esters show that these pesticides have an "ongoing and have a long-lasting effect," and that EPA has "continuing authority" over MCPA, salts and esters regulation. Thus, EPA's continued discretionary control and involvement in the registration of MCPA, salts and esters is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

442. In May of 2007, EPA issued tolerances for the MCPA, salts and esters.

443. On August 18, 2010, EPA completed product reregistration for the MCPA, salts and esters. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April

26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

444. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing MPCA salts and esters are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

445. EPA's final actions on products containing MPCA salts and esters do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

446. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by MCPA, salts and esters. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by MCPA, salts and esters. The list of species that may be affected by MCPA, salts and esters is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

447. For example, MCPA, salts and esters may affect the blunt-nosed leopard lizard, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by MCPA, salts and esters.

448. In the recovery plan for the blunt-nosed leopard lizard, FWS states: "This dramatic loss of natural communities was the result of cultivation, modification and alteration of existing communities for petroleum and mineral extraction, pesticide applications, off-road vehicle use, and

construction of transportation, communications, and irrigation infrastructures. These processes collectively have caused the reduction and fragmentation of populations and decline of blunt-nosed leopard lizards (Stebbins 1954, Montanucci 1965, USEWS 1980a, 1985a, Germano and Williams 1993)." MCPA salts and esters are herbicides commonly used in crops and pasture.

449. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by MCPA, salts and esters. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by MCPA, salts and esters in the future.

450. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of MCPA, salts and esters, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, MCPA, salts and esters may affect the species identified in Exhibit A, as well as their designated critical habitat.

451. EPA's failure to ensure that MCPA, salts and esters does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by MCPA, salts and esters. For example, EPA's failure to consult on MCPA, salts and esters may impair recovery of species impacted by MCPA, salts and esters and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on MCPA, salts and esters is necessary to ensure that Plaintiffs' members' interests in the species affected by MCPA, salts and esters are preserved and remain free from injury.

452. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in MCPA, salts and esters, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

453. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which MCPA, salts and esters affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on MCPA, salts and esters with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of MCPA, salts and esters.

454. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to MCPA, salts and esters do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Methomyl[18]

455. Exhibit A lists endangered and threatened species for which methomyl is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

456. Methomyl is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

457. Methomyl is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of methomyl are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, and reptiles.

458. Methomyl is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and

[18] The current EPA Case Number and EPA PC Code for methomyl are 0028, 090301.

reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

459. The USGS has detected methomyl in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

460. EPA "affirmatively authorized" the use of methomyl when it issued a Reregistration Eligibility Decision in March of 1998. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of methomyl is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

461. Since this authorization of the use of methomyl, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/methomyl/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2855 (last visited April 30, 2013).

462. EPA's subsequent actions on methomyl show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over methomyl regulation. Thus, EPA's continued discretionary control and involvement in the registration of methomyl is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a

private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

463. In May of 2012, EPA issued tolerances for methomyl.

464. In January of 2011, EPA issued a cancellation order for methomyl.

465. In September of 2010, EPA began reregistration review for methomyl.

466. On November 15, 2011, EPA completed product reregistration for methomyl. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

467. Specifically, EPA's online Pesticide Product Label System lists several active products containing methomyl:

Product Name	**Approved Date**	**Registration Number**
METHOMYL 29 SL INSECTICIDE	August 6, 2012	82557-2
METHOMYL 90 WSP	August 6, 2012	82557-3
METHOMYL TECHNICAL	March 26, 2012	70552-2
ROTAM METHOMYL 29LV INSECTICIDE	April 5, 2011	83100-27
LURECTRON SCATTERBAIT	November 15, 2011	7319-6
METHOMYL 5G GRANULES	August 21, 2011	57242-2
ROTAM METHOMYL 90SP INSECTICIDE	April 05, 2011	83100-28
DU PONT METHOMYL COMPOSITION	December 8, 2010	352-361
DUPONT LANNATE LV INSECTICIDE	December 8, 2010	352-384
DUPONT LANNATE SP INSECTICIDE	December 8, 2010	352-342

DUPONT METHOMYL TECHNICAL	December 8, 2010	352-366
GOLDEN MALRIN RF-128 FLY KILLER	October 20, 2010	2724-274

468. Upon information and belief, these registered products account for all of the EPA authorized use of methomyl in the U.S. One product was registered prior to January of 2005 and is not included here.

469. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing methomyl are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

470. EPA's final actions on products containing methomyl do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

471. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by methomyl. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by methomyl. The list of species that may be affected by methomyl is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

472. For example, methomyl may affect the giant garter snake, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by methomyl.

473. In the rule listing the giant garter snake, FWS explains: "Contaminants, such as fertilizers and pesticides, could adversely affect giant garter snake populations by degrading water quality and reducing prey populations."

474. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by methomyl. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by methomyl in the future.

475. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of methomyl, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, methomyl may affect the species identified in Exhibit A, as well as their designated critical habitat.

476. EPA's failure to ensure that methomyl does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by methomyl. For example, EPA's failure to consult on methomyl may impair recovery of species impacted by methomyl and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on methomyl is necessary to ensure that Plaintiffs' members' interests in the species affected by methomyl are preserved and remain free from injury.

477. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in methomyl, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

478. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which methomyl affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted,

Plaintiffs' interests will continue to be injured by EPA's failure to consult on methomyl with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of methomyl.

479. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to methomyl do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Metolachlor and Isomers[19]

480. Exhibit A lists endangered and threatened species for which metolachlor and isomers are known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

481. Metolachlor and isomers are known endocrine disrupters. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

482. Metolachlor and isomers are pesticides for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of metolachlor and isomers are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, and reptiles.

483. The metolachlor and isomers are pesticides that are "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, fish, and amphibians. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA

[19] Metolachlor and isomers refers to the following, which also shows the current EPA Case Number and EPA PC Code: metolachlor (0001, 108801), metalachlor,S (0001, 108800).

maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

484. The USGS has detected metolachlor and isomers in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

485. EPA "affirmatively authorized" the use of metolachlor and isomers when it issued a Reregistration Eligibility Decision in December of 1994. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of metolachlor and isomers is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

486. Since this authorization of the use of metolachlor and isomers, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2898 (last visited April 26, 2013); http://www.epa.gov/oppsrrd1/reregistration/metolachlor/ (last visited May 8, 2013).

487. EPA's subsequent actions on the metolachlor and isomers show that these pesticides have an "ongoing and have a long-lasting effect," and that EPA has "continuing authority" over metolachlor and isomers regulation. Thus, EPA's continued discretionary control and involvement in the registration of metolachlor and isomers is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

488. In September of 2008 and 2009 and May of 2012, EPA issued tolerances for metolachlor and isomers.

489. On July 21, 2005, EPA completed product reregistration for metolachlor and isomers. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

490. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing metolachlor and isomers are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

491. EPA's final actions on products containing metolachlor and isomers do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

492. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by metolachlor and isomers. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by metolachlor and isomers. The list of species that may be affected by metolachlor and isomers is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

493. For example, metolachlor and isomers may affect the Atlantic salt marsh snake, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other

things, her efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by metolachlor and isomers.

494. In the recovery plan for the Atlantic salt marsh snake, FWS explains: "Urban runoff, including pesticides and fertilizers applied to lawns and mosquito spraying, may degrade salt marsh habitats making them unsuitable for Atlantic salt marsh snakes." Metolachlor and isomers are herbicides used on lawns for weed control.

495. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by metolachlor and isomers. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by metolachlor and isomers in the future.

496. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of metolachlor and isomers, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, metolachlor and isomers may affect the species identified in Exhibit A, as well as their designated critical habitat.

497. EPA's failure to ensure that metolachlor and isomers does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by metolachlor and isomers. For example, EPA's failure to consult on metolachlor and isomers may impair recovery of species impacted by metolachlor and isomers and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on metolachlor and isomers is necessary to ensure that Plaintiffs' members' interests in the species affected by metolachlor and isomers are preserved and remain free from injury.

498. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in

metolachlor and isomers, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

499. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which metolachlor and isomers affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on metolachlor and isomers with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of metolachlor and isomers.

500. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to metolachlor and isomers do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Metribuzin[20]

501. Exhibit A lists endangered and threatened species for which metribuzin is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

502. Metribuzin is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

503. Metribuzin is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of metribuzin are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, and reptiles.

[20] The current EPA Case Number and EPA PC Code for metribuzin are 0181, 101101.

504. The USGS has detected metribuzin in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

505. EPA "affirmatively authorized" the use of metribuzin when it issued a Reregistration Eligibility Decision in June of 1997. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of metribuzin is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

506. Since this authorization of the use of metribuzin, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on this webpage maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:2899 (last visited April 30, 2013).

507. EPA's subsequent actions on metribuzin show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over metribuzin regulation. Thus, EPA's continued discretionary control and involvement in the registration of metribuzin is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

508. In September of 2012, EPA began reregistration review for metribuzin.

509. On July 21, 2005, EPA completed product reregistration for metribuzin. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System,

available at http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

510. Specifically, EPA's online Pesticide Product Label System lists several active products containing metribuzin:

Product Name	Approved Date	Registration Number
METRIBUZIN TECHNICAL HERBICIDE	April 2, 2013	264-1140
METRIBUZIN TECHNICAL HERBICIDE	March 26, 2013	264-728
LPI METRIBUZIN TECHNICAL	March 21, 2013	960-205
MANA 14223	December 21, 2012	66222-245
MATADOR-S	January 29, 2013	34704-1067
STALWART MTZ	December 21, 2012	60063-52
LPI 6364-12	February 2, 2012	34704-1062
INTIMIDATOR	September 20, 2012	34704-1065
BOUNDARY(R) 6.5EC HERBICIDE	July 5, 2012	100-1162
F6482-2 TURF AND IVM HERBICIDE	February 15, 2011	279-3412
BOUNDARY HERBICIDE	July 5, 2012	100-958
AXIOM DF HERBICIDE	June 7, 2012	264-766
CLOAK HERBICIDE	January 5, 2009	71368-83
F6482 45DF HERBICIDE	September 2, 2008	279-3340
MATADOR	February 2, 2011	34704-1054
METRIBUZIN 75WG	May 13, 2009	66222-106
APHD HERBICIDE	February 4, 2011	34704-817
GWN-9889	December 7, 2010	81880-25
DUPONT CANOPY HERBICIDE	October 27, 2005	352-444
METRIBUZIN TECHNICAL HERBICIDE	March 20, 2007	70506-62

SENCOR 75% TURF HERBICIDE	March 14, 2007	432-1469
AUTHORITY BL HERBICIDE	February 17, 2010	279-3175
METRI 4F HERBICIDE	March 30, 2005	70506-68
F6482 TURF AND IVM	August 28, 2008	279-3350
METRI DF	August 20, 2009	70506-103
METRIC MBZ	February 28, 2006	1381-197
METRIBUZIN 75	March 3, 2005	34704-876
METRIBUZIN 4 L	January 18, 2008	34704-990
SENCOR 4 FLOWABLE HERBICIDE	April 24, 2007	264-735
SENCOR DF 75% DRY FLOWABLE HERBICIDE	April 24, 2007	264-738
UPI METRIBUZIN 75DF HERBICIDE	March 30, 2005	70506-67

511. Upon information and belief, these registered products account for nearly all of the EPA authorized use of metribuzin in the U.S. Three additional products were registered prior to January of 2005 and are not included here.

512. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing metribuzin constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

513. EPA's registration of products containing metribuzin are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

514. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by metribuzin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by metribuzin. The list of species that may be affected by metribuzin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

515. For example, metribuzin may affect the Coastal California gnatcatcher, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by metribuzin.

516. In the rule designating critical habitat for the Coastal California gnatcatcher, FWS explains that activities that affect gnatcatcher habitat, including "herbicide application" require consultation.

517. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by metribuzin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by metribuzin in the future.

518. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of metribuzin, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, metribuzin may affect the species identified in Exhibit A, as well as their designated critical habitat.

519. EPA's failure to ensure that metribuzin does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by metribuzin. For example, EPA's failure to consult on metribuzin may impair recovery of species impacted by metribuzin and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on metribuzin is necessary to ensure that Plaintiffs' members' interests in the species affected by metribuzin are preserved and remain free from injury.

520. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in metribuzin, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

521. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which metribuzin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on metribuzin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of metribuzin.

522. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to metribuzin do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Naled[21]

523. Exhibit A lists endangered and threatened species for which naled is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

524. Naled is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of naled are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles].

[21] The current EPA Case Number and EPA PC Code for naled are 0092, 034401.

525. Naled is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

526. EPA "affirmatively authorized" the use of naled when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of naled is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

527. Since this authorization of the use of naled, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/naled/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3013 (last visited April 30, 2013).

528. EPA's subsequent actions on naled show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over naled regulation. Thus, EPA's continued discretionary control and involvement in the registration of naled is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

529. In May of 2012, EPA issued tolerances for naled.

530. In March of 2009, EPA began reregistration review for naled.

531. On December 6, 2007, EPA completed product reregistration for naled. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

532. Specifically, EPA's online Pesticide Product Label System lists several active products containing naled:

Product Name	**Approved Date**	**Registration Number**
DIBROM 8 EMULSIVE	September 24, 2007	5481-479
NALED TECHNICAL	June 22, 2007	5481-478
PROKIL NALED INSECTICIDE	December 6, 2007	10163-46
TRUMPET EC INSECTICIDE	October 18, 2007	5481-481
DIBROM CONCENTRATE	July 12, 2007	5481-480
FLY KILLER D	November 8, 2007	5481-482

533. Upon information and belief, these registered products account for all of the EPA authorized use of naled in the U.S.

534. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing naled constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

535. EPA's registration of products containing naled are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

536. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by naled. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by naled. The list of species that may be affected by naled is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

537. For example, naled may affect the California least tern, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by naled.

538. In the recovery plan for the California least tern, FWS explains: "A substantial pesticide threat may occur from chemicals used for mosquito larvicide control. These may have high invertebrate toxicities. It is conceivable that pesticides could alter the benthic communities to such an extent that fish production or availability could be changed drastically. Agricultural fields near estuaries could also be affected . . . ." Naled is used in mosquito control.

539. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by naled. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by naled in the future.

540. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of naled, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, naled may affect the species identified in Exhibit A, as well as their designated critical habitat.

541. EPA's failure to ensure that naled does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by naled. For example, EPA's failure to consult on naled may impair recovery of species impacted by naled and may make it

more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on naled is necessary to ensure that Plaintiffs' members' interests in the species affected by naled are preserved and remain free from injury.

542. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in naled, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

543. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which naled affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on naled with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of naled.

544. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to naled do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Oxydemeton-Methyl[22]

545. Exhibit A lists endangered and threatened species for which oxydemeton-methyl is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

546. Oxydemeton-methyl is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of oxydemeton-methyl are likely to exceed the LOCs for the following taxonomic groups: reptiles, mammals, birds, and amphibians.

547. Oxydemeton-methyl is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, crustaceans, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

548. EPA "affirmatively authorized" the use of oxydemeton-methyl when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of oxydemeton-methyl is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

549. Since this authorization of the use of oxydemeton-methyl, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA:

[22] The current EPA Case Number and EPA PC Code for oxydemeton-methyl are 0258, 058702.

http://www.epa.gov/oppsrrd1/registration_review/oxydemeton_methyl/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3198 (last visited April 30, 2013).

550. EPA's subsequent actions on oxydemeton-methyl show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over oxydemeton-methyl regulation. Thus, EPA's continued discretionary control and involvement in the registration of oxydemeton-methyl is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

551. In June of 2008, EPA began reregistration review for oxydemeton-methyl.

552. On August 16, 2007, EPA completed product reregistration for oxydemeton-methyl. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

553. Specifically, EPA's online Pesticide Product Label System lists several active products containing oxydemeton-methyl:

Product Name	**Approved Date**	**Registration Number**
HARPOON	March 28, 2013	64014-9
MSR SPRAY CONCENTRATE	March 18, 2010	10163-220
MSR 50% CONCENTRATE INSECTICIDE	June 12, 2008	10163-219
INJECT-A-CIDE	July 27, 2007	7946-10

554. Upon information and belief, these registered products account for all of the EPA authorized use of oxydemeton-methyl in the U.S.

555. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C.

§ 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing oxydemeton-methyl constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

556. EPA's registration of products containing oxydemeton-methyl are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

557. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by oxydemeton-methyl. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by oxydemeton-methyl. The list of species that may be affected by oxydemeton-methyl is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

558. For example, oxydemeton-methyl may affect the gray bat, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by oxydemeton-methyl.

559. In the recovery plan for the gray bat, FWS explains: "The possible influence of pesticides in causing decline of North American populations of insectivorous bats has been reported (Mohr, 1912; Reidinger, 1972, 1976; Clark and Prouty, 1976; Geluso et al., 1976), and a recent study has documented mortality and probable population decline in gray bats resulting from routine insecticide usage (Clark et al., 1978)." Oxydemeton-methyl is an insecticide.

560. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by oxydemeton-methyl. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by oxydemeton-methyl in the future.

561. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of oxydemeton-methyl, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, oxydemeton-methyl may affect the species identified in Exhibit A, as well as their designated critical habitat.

562. EPA's failure to ensure that oxydemeton-methyl does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by oxydemeton-methyl. For example, EPA's failure to consult on oxydemeton-methyl may impair recovery of species impacted by oxydemeton-methyl and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on oxydemeton-methyl is necessary to ensure that Plaintiffs' members' interests in the species affected by oxydemeton-methyl are preserved and remain free from injury.

563. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in oxydemeton-methyl, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

564. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which oxydemeton-methyl affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on oxydemeton-methyl with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of oxydemeton-methyl.

565. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These

injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to oxydemeton-methyl do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Oxyfluorfen[23]

566. Exhibit A lists endangered and threatened species for which oxyfluorfen is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

567. Oxyfluorfen is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of oxyfluorfen are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, and reptiles.

568. Oxyfluorfen is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, crustaceans, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

569. EPA "affirmatively authorized" the use of oxyfluorfen when it issued a Reregistration Eligibility Decision in August of 2002. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of

[23] The current EPA Case Number and EPA PC Code for oxyfluorfen are 2490, 111601.

oxyfluorfen is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

570. Since this authorization of the use of oxyfluorfen, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/oxyfluorfen/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3201 (last visited April 30, 2013).

571. EPA's subsequent actions on oxyfluorfen show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over oxyfluorfen regulation. Thus, EPA's continued discretionary control and involvement in the registration of oxyfluorfen is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

572. In September of 2008, EPA completed tolerances for oxyfluorfen.

573. On January 8, 2008, EPA completed product reregistration for oxyfluorfen. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

574. Specifically, EPA's online Pesticide Product Label System lists several active products containing oxyfluorfen:

Product Name	Approved Date	Registration Number
CHEMSICO HERBICIDE RTU 4A	December 3, 2007	9688-264
GOAL 2XL HERBICIDE	August 8, 2006	62719-424
OXY 2EC	May 15, 2012	82534-3
ROUT ORNAMENTAL HERBICIDE	September 14, 2007	58185-27
ROCKET HERBICIDE	October 5, 2011	87769-2

KT OXYFLO 4SC	November 28, 2011	86363-17
KT OXYFLO 2EC	November 28, 2011	86363-18
WILLOWOOD OXYFLO 4 SC	September 29, 2010	87290-10
WILLOWOOD OXYFLO 2 EC	November 2, 2010	87290-8
OXBOW 2E	October 27, 2011	70506-245
TRIOX VEGETATION KILLER FORMULA II	November 5, 2007	239-2622
BIATHLON	December 17, 2009	59807-12
Pindar GT	December 17, 2009	62719-611
OXYFLUORFEN TGAI	November 3, 2006	42750-135
OXYFLUORFEN 2EC	November 3, 2006	42750-136
GALIGAN 2E	April 11, 2011	66222-28
GALIGAN H2O	March 22, 2007	66222-140
ORTHO SEASON-LONG GRASS & WEED KILLER	November 3, 2005	239-2694
ORTHO FENCE & GRASS EDGER FORMULA II	October 23, 2007	239-2516
ORTHO SEASON LONG WEED & GRASS KILLER PLUS PREVENTER READY-SPRAY II	February 18, 2010	239-2706
WILLOWWOOD OXYFLUORFEN TECHNICAL	November 1, 2010	87283-1
CHEMSICO HERBICIDE CONCENTRATE 4A	November 8, 2007	9688-259
ORNAMENTAL HERBICIDE II	October 6, 2006	538-172
CHEMSICO HERBICIDE RTU 4B	May 6, 2010	9688-284
HERBICIDE CONCENTRATE 4B	April 30, 2010	9688-283
NATIONS AG II, LLC OXYFLUORFEN 2 HERBICIDE	January 9, 2008	81391-1
GOALTENDER	October 23, 2007	62719-447
NUFARM TWO OX PRO HERBICIDE	January 19, 2007	228-649
NUFARM DOUBLE O PRO HERBICIDE	June 9, 2006	228-632
OXYFLUORFEN TECHNICAL	July 13, 2009	62719-619
HARRELL'S	February 4, 2005	52287-15

GRANULAR HERBICIDE 75		
REGAL O-O HERBICIDE	August 2, 2007	48234-10
RAWHIDE 4F HERBICIDE	February 2, 2006	62719-448
CHIEF 3SC HERBICIDE	August 22, 2005	66222-107
OXYFLUORFEN 4SC	August 22, 2008	42750-199
SHOWCASE	December 17, 2007	62719-516
KLEENUP SUPER EDGER	December 10, 2007	4-432
ZOOMER HERBICIDE	December 7, 2007	66222-157
DOUBLEDOWN	October 25, 2007	81943-16
GOAL TECHNICAL PURIFIED	October 23, 2007	62719-399
GALIGAN OXYFLUORFEN TECHNICAL	July 28, 2006	11603-29

575. Upon information and belief, these registered products account for nearly all of the EPA authorized use of oxyfluorfen in the U.S. One product was registered prior to January of 2005 and is not included here.

576. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing oxyfluorfen constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

577. EPA's registration of products containing oxyfluorfen are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

578. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by oxyfluorfen. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species

that live in these areas and may be impacted by oxyfluorfen. The list of species that may be affected by oxyfluorfen is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

579. For example, oxyfluorfen may affect the piping plover, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, her efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by oxyfluorfen.

580. In the RED for oxyfluorfen, EPA explains: "The Agency had a consultation in 1985 (amended in 1986) with the US Fish and Wildlife Service (FWS or the Service) on oxyfluorfen (Goal 1.6E and Goal 2E) regarding its use on non-crop areas including rights-of ways, fence rows, roadsides, and levee banks. The Service found jeopardy to 76 species of endangered plants, 54 species of endangered fish, 23 species of endangered mussels (clams), two species of snails, eleven species of endangered insects, four endangered amphibians and one endangered bird (piping plover)."

581. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by oxyfluorfen. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by oxyfluorfen in the future.

582. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of oxyfluorfen, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, oxyfluorfen may affect the species identified in Exhibit A, as well as their designated critical habitat.

583. EPA's failure to ensure that oxyfluorfen does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by oxyfluorfen. For example, EPA's failure to consult on oxyfluorfen may impair recovery of species impacted by oxyfluorfen and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on oxyfluorfen

is necessary to ensure that Plaintiffs' members' interests in the species affected by oxyfluorfen are preserved and remain free from injury.

584. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in oxyfluorfen, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

585. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which oxyfluorfen affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on oxyfluorfen with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of oxyfluorfen.

586. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to oxyfluorfen do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Paraquat Dichloride[24]

587. Exhibit A lists endangered and threatened species for which paraquat dichloride is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

588. Paraquat dichloride is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for

[24] The current EPA Case Number and EPA PC Code for paraquat dichloride are 0262, 061601.

endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of paraquat dichloride are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, and reptiles.

589. Paraquat dichloride is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: crustaceans, mammals, fish, amphibians, and mollusks. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

590. EPA "affirmatively authorized" the use of paraquat dichloride when it issued a Reregistration Eligibility Decision in August of 1997. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of paraquat dichloride is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

591. Since this authorization of the use of paraquat dichloride, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on this webpage maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3221 (last visited April 30, 2013).

592. EPA's subsequent actions on paraquat dichloride show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over paraquat dichloride regulation. Thus, EPA's continued discretionary control and involvement in the registration of paraquat dichloride is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g),

independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

593. In December of 2011, EPA began reregistration review of paraquat dichloride

594. On November 21, 2006, EPA completed product reregistration for paraquat dichloride. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

595. Specifically, EPA's online Pesticide Product Label System lists several active products containing paraquat dichloride:

Product Name	**Approved Date**	**Registration Number**
PARAQUAT CONCENTRATE	October 11, 2007	82542-3
AX PARAQUAT CONCENTRATE	January 7, 2013	89167-24
WILLOWOOD PARAQUAT CONCENTRATE	November 20, 2012	87290-35
WILLOWOOD PARAQUAT TECHNICAL	November 20, 2012	89275-1
PARAQUAT CONCENTRATE ES	August 1, 2012	100-1067
GRAMOXONE INTEON	August 17, 2005	100-1217
PARAQUAT 3SL HERBICIDE	June 21, 2012	82866-1
PARAZONE 3SL	December 5, 2006	66222-130
DREXEL QUIK-QUAT	February 17, 2009	19713-617
PARAQUAT 3.0	December 20, 2011	72693-13
PARAQUAT SL HERBICIDE	January 25, 2006	82557-1
PARAQUAT MANUFACTURING CONCENTRATE	May 5, 2011	82633-16
HELMQUAT 3SL	December 6, 2010	74530-48
PARAQUAT CONCENTRATE	March 24, 2011	83529-27
BONFIRE	March 9, 2011	70506-239

HERBICIDE		
PARAQUAT TC	January 15, 2009	74530-37
DYNAQUAT	January 21, 2010	82542-26
PARAQUAT DICHLORIDE TECHNICAL	September 18, 2009	83558-5
HELMQUAT 3 SL	January 7, 2008	74530-32
CYCLONE STAR	July 28, 2008	100-1316
PARAQUAT TECHNICAL CONCENTRATE	May 19, 2005	70552-1

596. Upon information and belief, these registered products account for all of the EPA authorized use of paraquat dichloride in the U.S.

597. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing paraquat dichloride constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

598. EPA's registration of products containing paraquat dichloride are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

599. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by paraquat dichloride. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by paraquat dichloride. The list of species that may be affected by paraquat dichloride is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

600. For example, paraquat dichloride may affect the sand skink, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to

observe the species during frequent visits to habitats where the species can be found and may be affected by paraquat dichloride.

601. In the recovery plan for the sand skink, FWS prescribes: "Control pesticide use in or adjacent to sand skink habitat. Because pesticide use on adjacent agricultural and residential lands poses a potential risk to sand skinks, management plans should consider these risks and alleviate threats whenever possible."

602. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by paraquat dichloride. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by paraquat dichloride in the future.

603. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of paraquat dichloride, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, paraquat dichloride may affect the species identified in Exhibit A, as well as their designated critical habitat.

604. EPA's failure to ensure that paraquat dichloride does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by paraquat dichloride. For example, EPA's failure to consult on paraquat dichloride may impair recovery of species impacted by paraquat dichloride and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on paraquat dichloride is necessary to ensure that Plaintiffs' members' interests in the species affected by paraquat dichloride are preserved and remain free from injury.

605. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in paraquat dichloride, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

606. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which paraquat dichloride affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on paraquat dichloride with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of paraquat dichloride.

607. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to paraquat dichloride do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Pendimethalin[25]

608. Exhibit A lists endangered and threatened species for which pendimethalin is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

609. Pendimethalin is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

610. Pendimethalin is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of pendimethalin are likely to exceed the LOCs for the following taxonomic groups: birds, fish, amphibians, mollusks, crustaceans, and reptiles.

611. Pendimethalin is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are

[25] The current EPA Case Number and EPA PC Code for pendimethalin are 0187, 108501.

based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

612. The USGS has detected pendimethalin in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

613. EPA "affirmatively authorized" the use of pendimethalin when it issued a Reregistration Eligibility Decision in April of 1997. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of pendimethalin is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

614. Since this authorization of the use of pendimethalin, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on this webpage maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3221 (last visited April 30, 2013).

615. EPA's subsequent actions on pendimethalin show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over pendimethalin regulation. Thus, EPA's continued discretionary control and involvement in the registration of pendimethalin is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

616. In September of 2012, EPA began reregistration review for pendimethalin.

617. On July 3, 2007, EPA completed product reregistration for pendimethalin. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

618. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing pendimethalin are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

619. EPA's final actions on products containing pendimethalin do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

620. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by pendimethalin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by pendimethalin. The list of species that may be affected by pendimethalin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

621. For example, pendimethalin may affect the Chipola slabshell, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by pendimethalin.

622. In the recovery plan for the Chipola slabshell, FWS explains that pesticides may harm the Chipola slabshell. *Recovery Plan for Endangered Fat Threeridge, Shinyrayed Pocketbook, Gulf Moccasinshell,Ochlockonee Moccasinshell, Oval Pigtoe, and Threatened Chipola Slabshell and Purple Bankclimber*, *available at* http://ecos.fws.gov/docs/recovery_plan/030930.pdf (last visited May 3, 2013). The recovery plan explains that "effects of pesticides on mussels may be particularly profound (Fuller 1974, Havlik and Marking 1987, Moulton et al. 1996). . . . Commonly used pesticides have been directly implicated in a North Carolina mussel dieoff (Fleming et al. 1995). Cotton is raised extensively in much of the Apalachicolan Region inhabited by these mussels. One of the most important pesticides used in cotton farming, malathion, is known to inhibit physiological activities of mussels (Kabeer et al. 1979) that may decrease the ability of a mussel to respire and obtain food. This chemical may pose a continuing threat to some populations of these mussels." Pendimethalin is an herbicide also used in cotton production.

623. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by pendimethalin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by pendimethalin in the future.

624. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of pendimethalin, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, pendimethalin may affect the species identified in Exhibit A, as well as their designated critical habitat.

625. EPA's failure to ensure that pendimethalin does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by pendimethalin. For example, EPA's failure to consult on pendimethalin may impair recovery of species impacted by pendimethalin and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on

pendimethalin is necessary to ensure that Plaintiffs' members' interests in the species affected by pendimethalin are preserved and remain free from injury.

626. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in pendimethalin, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

627. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which pendimethalin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on pendimethalin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of pendimethalin.

628. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to pendimethalin do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Phorate[26]

629. Exhibit A lists endangered and threatened species for which phorate is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

630. Phorate is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources.

[26] The current EPA Case Number and EPA PC Code for phorate are 0103, 057201.

Specifically, EECs of phorate are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles.

631. Phorate is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

632. The USGS has detected phorate in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

633. EPA "affirmatively authorized" the use of phorate when it issued a Reregistration Eligibility Decision in July of 2007. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of phorate is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

634. Since this authorization of the use of phorate, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/phorate/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3327 (last visited April 30, 2013).

635. EPA's subsequent actions on phorate show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over phorate

regulation. Thus, EPA's continued discretionary control and involvement in the registration of phorate is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

636. In March of 2008, EPA issued a Revised RED for phorate.

637. In August of 2011, EPA denied a petition to revoke tolerances for phorate.

638. On April 30, 2008, EPA completed product reregistration for phorate. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

639. Specifically, EPA's online Pesticide Product Label System lists several active products containing phorate:

Product Name	**Approved Date**	**Registration Number**
THIMET TECHNICAL INSECTICIDE	October 18, 2006	5481-529
THIMET 20-G	April 30, 2008	5481-530
THIMET 15-G SOIL AND SYSTEMIC INSECTICIDE	April 30, 2008	5481-527
THIMET 10-G SOIL AND SYSTEMIC INSECTICIDE	April 30, 2008	5481-526
PHORATE 20-G	April 30, 2008	9779-293
CLEAN CROP PHORATE 20G	April 30, 2008	34704-259
PHORATE TECHNICAL INSECTICIDE	April 2, 2008	5481-8979
THIMET MC - 85 FOR MANUFACTURING PURPOSES ONLY	October 18, 2006	5481-528

640. Upon information and belief, these registered products account for nearly all of the EPA authorized use of phorate in the U.S. One product was registered before January of 2005 and is not included here.

641. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing phorate constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

642. EPA's registration of products containing phorate are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

643. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by phorate. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by phorate. The list of species that may be affected by phorate is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

644. For example, phorate may affect the Callippe silverspot, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by phorate.

645. In the ruling listing the Callippe silverspot, FWS explains that silverspot butterfly larvae are extremely sensitive to pesticides and the accumulation of runoff in the soil after spraying has proven lethal to the larvae of members of this genus. *Determination of Endangered Status for the*

Callippe Silverspot Butterfly and the Behren's Silverspot Butterfly and Threatened Status for Alameda Whipsnake, 62 Fed. Reg. 64306, 64314 (Dec. 5, 1997).

646. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by phorate. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by phorate in the future.

647. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of phorate, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, phorate may affect the species identified in Exhibit A, as well as their designated critical habitat.

648. EPA's failure to ensure that phorate does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by phorate. For example, EPA's failure to consult on phorate may impair recovery of species impacted by phorate and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on phorate is necessary to ensure that Plaintiffs' members' interests in the species affected by phorate are preserved and remain free from injury.

649. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in phorate, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

650. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which phorate affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on phorate with the Service,

as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of phorate.

651. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to phorate do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Phosmet[27]

652. Exhibit A lists endangered and threatened species for which phosmet is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

653. Phosmet is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of phosmet are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles.

654. Phosmet is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, fish, amphibians, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

655. EPA "affirmatively authorized" the use of phosmet when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7

[27] The current EPA Case Number and EPA PC Code for phosmet are 0242, 059201.

U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of phosmet is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

656. Since this authorization of the use of phosmet, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/phosmet/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3329 (last visited April 30, 2013).

657. EPA's subsequent actions on phosmet show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over phosmet regulation. Thus, EPA's continued discretionary control and involvement in the registration of phosmet is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

658. In June of 2009. EPA began reregistation review for phosmet.

659. On February 15, 2012, EPA completed product reregistration for phosmet. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

660. Specifically, EPA's online Pesticide Product Label System lists several active products containing phosmet:

Product Name	**Approved Date**	**Registration Number**
IMIDAN 70-W AGRICULTURAL	August 12, 2005	10163-169

INSECTICIDE		
IMIDAN TECHNICAL ORGANOPHOSPHORUS INSECTICIDE	November 7, 2007	10163-172
IMIDAN 60 WDG	March 4, 2010	10163-313
IMIDAN 1-E INSECTICIDE	January 27, 2010	10163-171
IMIDAN 50-WSB	January 27, 2010	10163-175
PHOSMET TECHNICAL ORGANOPHOSPHORUS INSECTICIDE	April 29, 2009	10163-304
ZOECON RF-43 EMULSIFIABLE LIQUID	April 8, 2009	2724-262
IMIDAN 5 DUST	March 9, 2009	10163-168

661. Upon information and belief, these registered products account for nearly all of the EPA authorized use of phosmet in the U.S. Two products were registered prior to January of 2005 and are not included here.

662. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing phosmet constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

663. EPA's registration of products containing phosmet are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

664. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by phosmet. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in

these areas and may be impacted by phosmet. The list of species that may be affected by phosmet is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

665. For example, phosmet may affect the Buena Vista Lake shrew, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by phosmet.

666. In the rule listing the Buena Vista Lake shrew, FWS states that due to the close proximity of shrew habitat to an otherwise agriculturally dominated landscape, the shrew may be "directly exposed to lethal and sublethal concentrations of pesticides from drift or direct spraying of crops, canals and ditch banks, wetland or riparian edges, and roadsides where shrews might exist." *Endangered Status for the Buena Vista Lake Shrew*, 67 Fed. Reg. 10101 (March 6, 2002). The listing designation also notes that "[r]educed reproduction in Buena Vista Lake Shrews could be directly caused by pesticides through grooming, and secondarily from feeding on contaminated insects." The listing also specifically acknowledges the endocrine-disrupting effects of carbamates and organophosphates, stating that "laboratory experiments have shown that behavioral activities such as rearing, exploring for food, and sniffing can be depressed for up to 6 hours in the common shrew from environmental and dietary exposure to sublethal doses of a widely used insecticide, dimethoate." The FWS explains that such depression in behavioral activities could make the shrews more vulnerable to predation and starvation. Furthermore, FWS explains that shrews may have higher concentrations of pesticides in their system than would normally be available because they may feed heavily on intoxicated arthropods after pesticide applications. Finally, FWS reports that Fresno, Kern, and Tulare counties are the three highest users of pesticides in California. Phosmet is a organophosphate insecticide.

667. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by phosmet. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by phosmet in the future.

668. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of phosmet, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, phosmet may affect the species identified in Exhibit A, as well as their designated critical habitat.

669. EPA's failure to ensure that phosmet does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by phosmet. For example, EPA's failure to consult on phosmet may impair recovery of species impacted by phosmet and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on phosmet is necessary to ensure that Plaintiffs' members' interests in the species affected by phosmet are preserved and remain free from injury.

670. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in phosmet, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

671. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which phosmet affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on phosmet with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of phosmet.

672. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to phosmet do not affect listed species and Plaintiffs' members' cognizable interests in

these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Propanil[28]

673. Exhibit A lists endangered and threatened species for which propanil is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

674. Propanil is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

675. Propanil is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of propanil are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

676. Propanil is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

677. The USGS has detected propanil in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

678. EPA "affirmatively authorized" the use of propanil when it issued a Reregistration Eligibility Decision in September of 2003. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend

[28] The current EPA Case Number and EPA PC Code for propanil are 0226, 028201.

registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of propanil is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

679. Since this authorization of the use of propanil, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/propanil/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3575 (last visited April 30, 2013).

680. EPA's subsequent actions on propanil show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over propanil regulation. Thus, EPA's continued discretionary control and involvement in the registration of propanil is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

681. In March of 2006, EPA issued an Amended RED for propanil.

682. In May of 2007, EPA issued tolerances for propanil.

683. On May 11, 2010, EPA completed product reregistration for propanil. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

684. Specifically, EPA's online Pesticide Product Label System lists several active products containing propanil:

Product Name	**Approved Date**	**Registration Number**
WILLOWOOD PROPANIL 80DF	March 16, 2011	87290-17
RICEEDGE 60 DF	January 3, 2013	71085-32
LIBERTY	November 15, 2012	89168-13

PROPANIL 4SC		
LIBERTY PROPANIL 80DF	November 15, 2012	89168-10
WILLOWOOD PROPANIL TECHNICAL	June 13, 2011	87829-1
WHAM! 80 DF	August 31, 2012	71085-6
STAM 80 EDF	August 16, 2012	71085-38
RICECO PROPANIL 60 DF	September 10, 2008	71085-22
STAM TECHNICAL	June 23, 2008	70506-165 (now 71085-37)
WILLOWOOD PROPANIL 4EC	February 7, 2012	87290-32
STAM M4 HERBICIDE	July 1, 2008	70506-164 (now 71085-36)
PROPANIL TECHNICAL	January 24, 2008	71085-21
TECHNICAL PROPANIL	November 26, 2007	71085-28
RICECO PROPANIL TECHNICAL	November 26, 2007	71085-1
KT PROPANIL 4SC	October 31, 2011	86363-20
KT PROPANIL 80DF	October 31, 2011	86363-19
WILLOWOOD PROPANIL 4 SC	March 9, 2011	87290-18
DUET 60DF	April 7, 2008	71085-23
DUET HERBICIDE	April 7, 2008	71085-9
PROPANIL EC	March 24, 2010	71085-20
IDA PROP-A-NEL 4	November 26, 2007	19713-285
PROPANIL 48 SF	December 20, 2007	71085-2
WHAM ! EZ	May 27, 2008	71085-5
PROP-JOB 3 PROPANIL HERBICIDE	November 20, 2008	19713-30
RICEBEAUX	June 1, 2010	71085-30
PROPANIL XTRA FLOWABLE	September 10, 2008	19713-576
RICEEDGE	April 1, 2010	71085-31
STAM 4 SC	May 20, 2008	70506-167
PROPANIL 36%	March 11, 2009	71085-3
BEST PROPANIL 3 EC POST EMERGENCE GRASS & WEED KILLER	March 11, 2009	34704-461
DUET DF RICE HERBICIDE	March 24, 2008	71085-16

RICEPRO	March 13, 2007	71085-26
RICEPYR	July 1, 2008	71085-29
DREXEL PROP-JOB 4 PROPANIL HERBICIDE	August 18, 2008	19713-31
SETRE PROWL HERBICIDE + PROPANIL	April 28, 2008	5905-495
DREXEL PROPANIL EC	December 3, 2007	19713-577
RICEMAX	December 20, 2006	71085-25

685. Upon information and belief, these registered products account for all of the EPA authorized use of propanil in the U.S.

686. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing propanil constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

687. EPA's registration of products containing propanil are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

688. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by propanil. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by propanil. The list of species that may be affected by propanil is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

689. For example, propanil may affect the killer whale, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, his efforts to

observe the species during frequent visits to habitats where the species can be found and may be affected by propanil.

690. In the recovery plan for the killer whale, FWS explains: "With up to 1,000 new chemicals entering the global environment annually, it is difficult for environmental agencies to monitor levels and sources of all contaminants, and to provide effective regulation (Grant and Ross 2002). Studies are beginning to identify many relatively new substances as potentially harmful to marine organisms, including . . . endocrine disruptors (e.g., synthetic estrogens, steroids, some pesticides) . . . (Grant and Ross 2002). . . . Endocrine disruptors may affect thyroid function, decrease fertility, feminize or masculinize genital anatomy, suppress immune function, and alter behavior (Yamamoto et al. 1996)." FWS further explains: "Marine mammal populations are often exposed to many forms of environmental degradation, including habitat deterioration, changes in food availability, increased exposure to pollutants, and human disturbance. All of these factors have been identified as potential threats to killer whales in Washington and British Columbia (Ford and Ellis 1999, Ford et al. 2000, Baird 2001, Krahn et al. 2002, 2004a, Taylor 2004, Wiles 2004) . . . Mammal-eating populations appear to be especially vulnerable to accumulation of contaminants because of the higher trophic level of their prey, as compared to fish-eating populations (Ross et al. 2000a)."

691. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by propanil. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by propanil in the future.

692. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of propanil, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, propanil may affect the species identified in Exhibit A, as well as their designated critical habitat.

693. EPA's failure to ensure that propanil does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by propanil. For example, EPA's failure to consult on propanil may impair recovery of species impacted by propanil and may make it more likely that these species would suffer population declines. Species declines and

impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on propanil is necessary to ensure that Plaintiffs' members' interests in the species affected by propanil are preserved and remain free from injury.

694. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in propanil, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

695. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which propanil affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on propanil with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of propanil.

696. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to propanil do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Propargite[29]

697. Exhibit A lists endangered and threatened species for which propargite is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

[29] The current EPA Case Number and EPA PC Code for propargite are 0243, 097601.

698. Propargite is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of propargite are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

699. Propargite is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

700. The USGS has detected propargite in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

701. EPA "affirmatively authorized" the use of propargite when it issued a Reregistration Eligibility Decision in September of 2001. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of propargite is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

702. Since this authorization of the use of propargite, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/propargite/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:3601 (last visited April 30, 2013).

703. EPA's subsequent actions on propargite show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over propargite regulation. Thus, EPA's continued discretionary control and involvement in the registration of propargite is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

704. In September of 2008, EPA issued tolerances for propargite.

705. In December of 2005, EPA modified certain provisions of the RED for propargite.

706. In June of 2008, EPA issued an Amendment to the RED for propargite.

707. On May 15, 2008, EPA completed product reregistration for propargite. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

708. Specifically, EPA's online Pesticide Product Label System lists several active products containing propargite:

Product Name	**Approved Date**	**Registration Number**
COMITE II	July 10, 2007	400-154
OMITE-6E	July 20, 2007	400-89
COMITE AGRICULTURAL MITICIDE	July 27, 2007	400-104
OMITE TECHNICAL	April 2, 2007	400-95
OMITE-30WS	June 13, 2007	400-427
OMITE-57E	July 2, 2007	400-83
OMITE 30W	December 18, 2007	400-565

709. Upon information and belief, these registered products account for nearly all of the EPA authorized use of propargite in the U.S. One product was registered prior to January of 2005 and is not included here.

710. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing propargite constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

711. EPA's registration of products containing propargite are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

712. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by propargite. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by propargite. The list of species that may be affected by propargite is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

713. For example, propargite may affect Santa Ana sucker, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by propargite.

714. In the rule listing the Santa Ana sucker, FWS states: "Although no toxicologically significant impacts were observed by the authors, maximum allowable concentrations of pesticides and related chemicals for aquatic organisms occasionally were exceeded. Moreover, maximum contaminant levels/health advisory levels were frequently exceeded for various pesticides and ground water nitrate-nitrogen. Although the water quality tolerances of Santa Ana suckers are unknown, in general, point and nonpoint source pollution (e.g., urban runoff, sedimentation) have significantly degraded the water quality in most of the native range of the Santa Ana sucker."

715. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by propargite. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by propargite in the future.

716. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of propargite, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, propargite may affect the species identified in Exhibit A, as well as their designated critical habitat.

717. EPA's failure to ensure that propargite does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by propargite. For example, EPA's failure to consult on propargite may impair recovery of species impacted by propargite and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on propargite is necessary to ensure that Plaintiffs' members' interests in the species affected by propargite are preserved and remain free from injury.

718. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in propargite, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

719. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which propargite affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on propargite with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of propargite.

720. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to propargite do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

S,S,S-Tributyl Phosphorotrithioate[30]

721. Exhibit A lists endangered and threatened species for which S,S,S-tributyl phosphorotrithioate (tribufos) is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

722. S,S,S-tributyl phosphorotrithioate is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of S,S,S-tributyl phosphorotrithioate are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

723. S,S,S-tributyl phosphorotrithioate is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

724. EPA "affirmatively authorized" the use of S,S,S-tributyl phosphorotrithioate when it issued a Reregistration Eligibility Decision in July of 2006. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the

[30] The current EPA Case Number and EPA PC Code for S,S,S-tributyl phosphorotrithioate are 2145, 074801.

environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of S,S,S-tributyl phosphorotrithioate is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

725. Since this authorization of the use of S,S,S-tributyl phosphorotrithioate, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/registration_review/tribufos/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:4091 (last visited April 30, 2013).

726. EPA's subsequent actions on S,S,S-tributyl phosphorotrithioate show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over S,S,S-tributyl phosphorotrithioate regulation. Thus, EPA's continued discretionary control and involvement in the registration of S,S,S-tributyl phosphorotrithioate is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

727. In March of 2009, EPA began reregistration review for S,S,S-tributyl phosphorotrithioate.

728. On July 12, 2006, EPA completed product reregistration for S,S,S-tributyl phosphorotrithioate. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

729. Specifically, EPA's online Pesticide Product Label System lists several active products containing S,S,S-tributyl phosphorotrithioate:

Product Name	Approved Date	Registration Number

DEF TECHNICAL DEFOLIANT	May 3, 2012	5481-9022
FOLEX 6 EC	May 22, 2006	5481-504
TRIBUFOS 6	May 18, 2011	85678-15
TRIBUFOS TECHNICAL	February 28, 2011	85678-10
DEF 6 EMULSIFIABLE DEFOLIANT	July 12, 2006	264-730

730. Upon information and belief, these registered products account for nearly all of the EPA authorized use of S,S,S-tributyl phosphorotrithioate in the U.S. One product was registered before January of 2005 and is not included here.

731. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing S,S,S-tributyl phosphorotrithioate constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

732. EPA's registration of products containing S,S,S-tributyl phosphorotrithioate are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

733. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by S,S,S-tributyl phosphorotrithioate. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by S,S,S-tributyl phosphorotrithioate. The list of species that may be affected by S,S,S-tributyl phosphorotrithioate is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

734. For example, S,S,S-tributyl phosphorotrithioate may affect the Kern primrose sphinx moth, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by S,S,S-tributyl phosphorotrithioate.

735. In the recovery plan for the Kern primrose sphinx moth, FWS explains: "Other agricultural practices such as the application of pesticides and herbicides or channeling of washes could adversely effect the moth and its host plant was shown to be negatively affected by drift from aerial application of insecticide (Bagdonis, pers. comm.). The potential exists for causing accidental extirpation of the moth." FWS further explains: "In order to protect Kern primrose sphinx moth habitat, reduction of any deleterious effects to the moth from aerial pesticide application is essential."

736. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by S,S,S-tributyl phosphorotrithioate. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by S,S,S-tributyl phosphorotrithioate in the future.

737. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of S,S,S-tributyl phosphorotrithioate, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, S,S,S-tributyl phosphorotrithioate may affect the species identified in Exhibit A, as well as their designated critical habitat.

738. EPA's failure to ensure that S,S,S-tributyl phosphorotrithioate does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by S,S,S-tributyl phosphorotrithioate. For example, EPA's failure to consult on S,S,S-tributyl phosphorotrithioate may impair recovery of species impacted by S,S,S-tributyl phosphorotrithioate and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on S,S,S-tributyl phosphorotrithioate is necessary to ensure that Plaintiffs' members' interests in the species affected by S,S,S-tributyl phosphorotrithioate are preserved and remain free from injury.

739. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in S,S,S-tributyl phosphorotrithioate, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

740. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which S,S,S-tributyl phosphorotrithioate affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on S,S,S-tributyl phosphorotrithioate with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of S,S,S-tributyl phosphorotrithioate.

741. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to S,S,S-tributyl phosphorotrithioate do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Thiobencarb[31]

742. Exhibit A lists endangered and threatened species for which thiobencarb is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

743. Thiobencarb is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources.

[31] The current EPA Case Number and EPA PC Code for thiobencarb are 2665, 108401.

Specifically, EECs of thiobencarb are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

744. Thiobencarb is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, mollusks, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

745. The USGS has detected thiobencarb in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

746. EPA "affirmatively authorized" the use of thiobencarb when it issued a Reregistration Eligibility Decision in September of 1997. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of thiobencarb is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

747. Since this authorization of the use of thiobencarb, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:4039 (last visited April 30, 2013).

748. EPA's subsequent actions on thiobencarb show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over thiobencarb regulation. Thus, EPA's continued discretionary control and involvement in the registration of

thiobencarb is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

749. In December of 2011, EPA began reregistration review for thiobencarb.

750. On April 20, 2006, EPA completed product reregistration for thiobencarb. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

751. Specifically, EPA's online Pesticide Product Label System lists several active products containing thiobencarb:

Product Name	**Approved Date**	**Registration Number**
LEAGUE MVP HERBICIDE	August 2, 2012	59639-189
BOLERO 15G (HERBICIDE)	May 24, 2007	59639-112
BOLERO 8 EC	August 23, 2005	59639-79
BOLERO 15 G (HERBICIDE)	May 24, 2007	63588-14
BOLERO TECHNICAL	October 24, 2005	63588-4
BOLERO 8 EC (HERBICIDE)	February 2, 2006	63588-6
RICEBEAUX	June 1, 2010	71085-30

752. Upon information and belief, these registered products account for nearly all of the EPA authorized use of thiobencarb in the U.S. One product was registered before January 2005 and is not included here.

753. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular

uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, the registration of products containing thiobencarb constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

754. EPA's registration of products containing thiobencarb are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

755. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by thiobencarb. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by thiobencarb. The list of species that may be affected by thiobencarb is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

756. For example, thiobencarb may affect the San Bruno elfin, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by thiobencarb.

757. In the recovery plan for the San Bruno elfin, FWS prescribes: "Minimize use of herbicides, insecticides and other toxic substances. The use of toxic substances within the essential habitat of San Bruno elfin and Mission blue butterflies should be prohibited or minimized. Physical removal of unwanted flora is preferred."

758. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by thiobencarb. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by thiobencarb in the future.

759. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of thiobencarb, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the

Complaint, thiobencarb may affect the species identified in Exhibit A, as well as their designated critical habitat.

760. EPA's failure to ensure that thiobencarb does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by thiobencarb. For example, EPA's failure to consult on thiobencarb may impair recovery of species impacted by thiobencarb and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on thiobencarb is necessary to ensure that Plaintiffs' members' interests in the species affected by thiobencarb are preserved and remain free from injury.

761. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in thiobencarb, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

762. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which thiobencarb affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on thiobencarb with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of thiobencarb.

763. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to thiobencarb do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs'

injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

Trifluralin[32]

764. Exhibit A lists endangered and threatened species for which trifluralin is known to be harmful to the taxonomic group of that species and is used in the state where that species lives.

765. Trifluralin is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

766. Trifluralin is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of trifluralin are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, and reptiles.

767. Trifluralin is a pesticide that is "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

768. The USGS has detected trifluralin in dozens of waterways across the nation, as documented in reports on its nationwide water quality surveys. As shown in Exhibit B, some of these watersheds overlap the range of species that may be affected by this pesticide.

769. EPA "affirmatively authorized" the use of trifluralin when it issued a Reregistration Eligibility Decision in August of 2004. As set forth above, EPA has discretion to influence or change registrations of pesticides for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an

[32] The current EPA Case Number and EPA PC Code for trifluralin are 0179, 036101.

unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of trifluralin is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

770. Since this authorization of the use of trifluralin, EPA has retained discretionary control and involvement over this pesticide through the subsequent actions identified immediately below, as well as others which are summarized on these webpages maintained by EPA: http://www.epa.gov/oppsrrd1/reregistration/trifluralin/ (last visited May 8, 2013); http://iaspub.epa.gov/apex/pesticides/f?p=CHEMICALSEARCH:31:0::NO:1,3,31,7,12,25:P3_XCHEMICAL_ID:4151 (last visited April 30, 2013).

771. EPA's subsequent actions on trifluralin show that EPA's registration of this pesticide is "ongoing and ha[s] a long-lasting effect," and that EPA has "continuing authority" over trifluralin regulation. Thus, EPA's continued discretionary control and involvement in the registration of trifluralin is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2). The ESA's citizen suit provision, 16 U.S.C. § 1540(g), independently authorizes a private right of action to compel EPA to comply with the ESA's consultation requirement for this action.

772. In July of 2012, EPA began reregistration review for trifluralin.

773. In August of 2004, EPA issued a TRED for trifluralin.

774. In September of 2006, EPA issued tolerances for trifluralin.

775. On October 17, 2006, EPA completed product reregistration for trifluralin. *See* http://www.epa.gov/pesticides/reregistration/product-rereg-schedule.htm (last visited April 26, 2013). Active product registrations for this pesticide can be found on EPA's Pesticide Product Label System, *available at* http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1 (last visited May 9, 2013). EPA provided no hearings or other public participation for these product registration actions.

776. As set forth above, EPA has discretion to influence or change registrations of pesticide products for the benefit of protected species. For example, EPA may only register or reregister a pesticide product if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5); 7 U.S.C. § 136a-1(g)(2)(C); 40 C.F.R. § 152.112; 40 C.F.R. § 152.113(a). EPA may also

change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's completion of product reregistration and its approvals of products containing trifluralin are additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

777. EPA's final actions on products containing trifluralin do not follow a hearing and are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a), as well as under the ESA's citizen suit provision, 16 U.S.C. § 1540(g).

778. Plaintiffs' members live, work, visit, recreate, and otherwise enjoy areas across the nation that may be impacted by trifluralin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by trifluralin. The list of species that may be affected by trifluralin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

779. For example, trifluralin may affect the desert pupfish, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by trifluralin.

780. In the rule listing the desert pupfish and designating its critical habitat, FWS explains: "The surviving natural populations are impacted by . . . agricultural pesticide drift . . . ." In addition, in the recovery plan, FWS explains: "Drift from aerial application of pesticides, in proximity to pupfish populations, has contributed to the decline of Quitobaquito pupfish (Kynard 1981, Miller and Fuiman 1987). Aerial pesticide application is a common practice near other natural populations (e.g., Rio Sonoyta, Mexico; lower San Felipe Creek, California and a small portion of the upper creek) which may be similarly impacted." In addition, in the 1989 Biological Opinion for trifluralin, FWS provides reasonable and prudent alternatives to avoid harm to the pupfish.

781. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted

by trifluralin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by trifluralin in the future.

782. The above-described interests of Plaintiffs and their members have been and are being adversely affected by EPA's registration and authorization of the use of trifluralin, which is a pesticide that may harm endangered and threatened species and their habitats. As alleged in the Complaint, trifluralin may affect the species identified in Exhibit A, as well as their designated critical habitat.

783. EPA's failure to ensure that trifluralin does not impact endangered species and their habitats harms Plaintiffs' members' interests in the species and their habitats affected by trifluralin. For example, EPA's failure to consult on trifluralin may impair recovery of species impacted by trifluralin and may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence of these rare animals, such as by limiting their ability to observe the species. Consultation on trifluralin is necessary to ensure that Plaintiffs' members' interests in the species affected by trifluralin are preserved and remain free from injury.

784. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's continuing registration and discretionary control and involvement in trifluralin, this pesticide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

785. If this Court orders EPA to engage in consultation as required, the Service would analyze the extent to which trifluralin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to consult on trifluralin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of trifluralin.

786. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These

injuries are directly caused by the Defendants' failure to consult with the Service to ensure that EPA's actions relating to trifluralin do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

IX. EPA's Failure To Reinitiate Consultation On Pesticides From Previous Biological Opinions

787. In 1989, EPA concluded consultation with the FWS, and FWS issued a Biological Opinion titled "Effects of Pesticides on Aquatic Endangered Species."

788. This 1989 Biological Opinion ("BiOp") addressed, in part, the following pesticides/pesticide groups that are still registered and used presently: 2,4-D, acephate, aldicarb, atrazine, bensulide, captan, carbaryl, chlorothalinil, chlorpyrifos, cypermethrin, dazomet, diazinon, dicamba, dichlorprop, dimethoate, diuron, ethoprop, malathion, mancozeb, methomyl, naled, oxyfluorfen, paraquat dichloride, pendimethalin, permethrin, phorate, phosmet, profenofos, propargite, simazine, S,S,S-tributyl phosphorotrithioate, terbufos, thiophanate-methly, tricholorofon, trifluralin.

789. The 1989 BiOp, at pages II-4 to II-9, identifies Reasonable and Prudent Alternatives ("RPAs") and Reasonable and Prudent Measures ("RPMs") that can apply to any given pesticide that was analyzed in the BiOp. The BiOp then, at pages II-11 to II-224, explains which specific RPAs and RPMs apply to each pesticide/species combination. Pages III-1 to III-5 of the BiOp identify the species covered by the BiOp.

790. In 1993, EPA concluded consultation with the USFWS, and FWS issued a Biological Opinion titled "Effects of 16 Vertebrate Control Agents On Threatened and Endangered Species."

791. This 1993 Biological Opinion addressed, in part, the following pesticides/pesticide groups that are presently registered and used: brodifacoum, bromadialone, bromethalin, chlorophacinone, diphacinone, warfarin, and zinc phosphide.

792. The 1993 Biological Opinion covers all species that were listed or proposed for listing prior to July 1, 1991 (see pages III-1 to III-9), and addressed, for example, the following currently listed species: (mammals) Amargosa vole, black-footed ferret, Carolina northern flying squirrel,

Delmarva Peninsula fox squirrel, Florida panther, Fresno kangaroo rat, giant kangaroo rat, gray wolf, Key Largo cotton mouse, Key Largo woodrat, Louisiana black bear, Lower Keys rabbit, Morro Bay kangaroo rat, ocelot, San Joaquin kit fox, Stephen's kangaroo rat, and Tipton kangaroo rat; (birds) Audubon's crested caracara and California condor; (reptiles) blunt-nosed leopard lizard, desert tortoise, Eastern indigo snake, and gopher tortoise.

793. The 1993 Biological Opinion contains RPAs and RPMs that are specific to pesticide/species combinations (pages II-1 to II-106), and explains, in regard to "incidental take":

> In those situations where the Service believes take may occur but is not able to assign a specific number to that take, an "unquantifiable" level of take has been assigned. This indicates that the Service believes that take is unavoidable but unquantifiable.
>
> In order to insure protection for species assigned a level of unquantifiable take, the Service must have a mechanism to reinitiate consultation. Since it is so unlikely that take resulting from pesticide use will ever be discovered, if even one dead specimen is discovered whose death is attributable to the legal use of pesticides, then use of that pesticide must cease in all occupied habitat of the species and consultation on that chemical for that species must be reinitiated.
>
> Specific reasonable and prudent measures that the Service considers necessary and appropriate to minimize incidental take and the terms and conditions to implement such measures are provided for those species receiving an incidental take statement. Reasonable and prudent measures are provided to minimize impacts to the individuals or habitat affected by the action. Such measures are designed to decrease the level of take to the maximum extent possible. Measures are determined to be reasonable and prudent when they are consistent with the basic design, location, scope, duration and timing of the action. These measures represent the Service's best professional judgment of the actions necessary to provide the appropriate level of protection to the species given the data currently available.
>
> The Service has determined, that for certain listed species considered in this opinion, an unquantifiable level of incidental take may occur even if the recommended reasonable and prudent alternatives to preclude jeopardy are followed. . . . To minimize take in the above-mentioned scenarios, the Service is requiring, as a reasonable and prudent measure that EPA adopt a monitoring/enforcement program. The Service believes that the likelihood of incidental take will be minimized if the EPA fully implements a monitoring/enforcement program. A monitoring program will alert both the Service and EPA to possible deficiencies in the reasonable and prudent alternatives and allow the Service to request reinitiation of consultation to modify those deficiencies before further take occurs.

794. To better understand what the EPA was or was not doing in regard to its obligations under the 1989 and 1993 BiOps's RPAs, RPMs, and incidental take provisions, the Center submitted a Freedom of Information Act request in 2009 asking for the following information:

> All documents . . . regarding monitoring of, compliance with, effectiveness of, and enforcement pertaining to, the reasonable and prudent alternatives and/or measures identified in the June 29, 1989 Biological Opinion entitled "Effects of Pesticides on Aquatic Endangered Species" [and the] March 1993 Biological Opinion entitled "Effects of 16 Vertebrate Control Agents on Threatened and Endangered Species."

The Center received the following response:

> I am pleased to provide you with the following document: 'U.S. Department of Interior letter to EPA dated 11/1/96 as it relates to March 1993 Biological Opinion (2 pages).' A search was conducted and there were no records found for the June 29, 1989 pesticide Biological Opinion.

The Department of Interior letter to EPA dated 11/1/96 states:

> This responds to your October 31, 1996, request for approval of Pesticide Bulletins for the use of Grain Bait and Pelletized Rodenticides and Burrow Fumigants in the State of California. These bulletins were developed jointly by the Environmental Protection Agency (EPA), California Department of Pesticide Regulation (DPR), California Department of Fish and Game, California Department of Food and Agriculture, Fish and Wildlife Service (Service), and County Agricultural Commissioners. Specifically, you requested the Service's concurrence that these bulletins adequately protect affected threatened and endangered species and can be substituted for the reasonable and prudent measures and reasonable and prudent alternatives as described in the Service's March 1993 biological opinion on the Effects of 16 Vertebrate Control Agents on Threatened and Endangered Species. The Service concludes that the Grain Bait and Pelletized Rodenticide and Burrow Fumigant Bulletins adequately protect federally listed species during subject pesticide uses and that they are consistent with the conclusions of the March 1993 Vertebrate Control biological opinion. Consequently, reinitiation of formal consultation is not required. However, please note that this concurrence applies only to those species covered in these bulletins that were also addressed in the 1993 opinion. The Service believes that reinitiation of consultation is required for species covered in the subject bulletins that were not addressed in the 1993 opinion (i.e., those listed since the issuance of that opinion), and are discussing such consultation with your staff to ensure adequate compliance under section 7 of the Endangered Species Act.

795. The 'bulletins" referred to in the 1996 letter were, as far as Plaintiffs are aware, considered by EPA to be voluntary.

796. EPA now has a new program—titled "Bulletins Live" – that is mandatory, but only if "your pesticide label directs you to [the Bulletins Live] Web site." Plaintiffs are not aware – in regard to the pesticides covered by the 1989 and 1993 BiOps – of any labels on these pesticides which direct the user to "Bulletins Live," nor are Plaintiffs aware of any actual restrictions existing on "Bulletins Live" for any of these pesticides.

797. It does not appear that EPA knows how much take has occurred for any of the species covered by the 1989 and 1993 BiOps.

798. It does not appear that EPA is implementing the 1989 or 1993 BiOp's reasonable and prudent alternatives, reasonable and prudent measures, or performing monitoring. The failure to implement the measures specified in the BiOps triggers the duty to reinitiate consultation on the pesticides and species covered by those BiOps.

799. The following describes the pesticides addressed in the 1989 and 1993 BiOps that are at issue in this case:

2,4-D, Salts and Esters[33] (1989 BiOp):

800. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over 2,4-D (including its salts and esters), and EPA has discretion to influence or change 2,4-D use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

801. In 2005, EPA issued a RED for 2,4-D, and stated that the "level of concern for endangered and threatened freshwater fish and invertebrates, estuarine invertebrates, birds, mammals, aquatic vascular plants, and terrestrial non-target plants is exceeded for the use of 2,4-D." The 2005 RED acknowledges that EPA is not implementing any mandatory measures for 2,4-D in regard to ESA listed species. The RED also states that registrants "must provide information on the proximity of Federally listed freshwater vascular plants, birds, mammals, and non-target terrestrial plants (there are no listed estuarine/marine invertebrates) to the 2,4-D use sites."

802. 2,4-D is now a known endocrine disrupter. Endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

[33] 2,4-D, salts and esters refers to the following, which also shows the current EPA Case Number and EPA PC Code: 2,4-D (0073, 030001); 2,4-D, 2-ethylhexyl ester (0073, 030063); 2,4-D, butoxyethanol ester (0073, 030053); 2,4-D, (choline salt 0073, 051505); 2,4-D, diethanolamine salt (0073, 030016); 2,4-D, dimethylamine salt (0073, 030019); 2,4-D, isooctyl ester (0073, 030064); 2,4-D, isopropyl ester (0073, 030066); 2,4-D, isopropylamine salt (0073, 030025); 2,4-D, methyamine salt (0073, 030027); 2,4-D, sodium salt (0073, 030004); 2,4-D, triisopropanolamine salt (0073, 030035).

803. 2,4-D is also now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

804. The USGS, in a report issued in 2007,[34] found that 2,4-D was one of the most frequently detected pesticides in the sampled waterways, and it (or its degradate) has been detected in over a hundred watersheds in the United States where susceptible species exist as well (see Exhibit B).

805. The EPA, in 2009, found 2,4-D "likely to adversely affect" the California red-legged frog and the Alameda whipsnake.[35]

806. On March 16, 2012, EPA completed product reregistration for 2,4-D, and EPA has issued new approvals for pesticide products since 1989.

807. Relyea (2009)[36] researched "how a single application of five insecticides (malathion, carbaryl, chlorpyrifos, diazinon, and endosulfan) and five herbicides (glyphosate, atrazine, acetochlor, metolachlor, and 2,4-D) at low concentrations (2–16 p.p.b.) affected aquatic communities composed of zooplankton, phytoplankton, periphyton, and larval amphibians (gray tree frogs, *Hyla versicolor*, and leopard frogs, *Rana pipiens*)." The study "examined each pesticide alone, a mix of insecticides, a mix of herbicides, and a mix of all ten pesticides." The study's results show that "a single application of insecticides and herbicides (alone and in combination at low concentrations) can have dramatic effects

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[34] Robert J. Gilliom, Jack E. Barbash, Charles G. Crawford, Pixie A. Hamilton, Jeffrey D. Martin, Naomi Nakagaki, Lisa H. Nowell, Jonathan C. Scott, Paul E. Stackelberg, Gail P. Thelin & David M. Wolock.*The Quality of Our Nation's Waters—Pesticides in the Nation's Streams and Ground Water*, 1992–2001. U.S. Geological Survey Circular 1291 (Feb. 15, 2007), http://pubs.usgs.gov/circ/2005/1291/pdf/circ1291.pdf ("USGS 2007 Report").

[35] *See Effects Determinations for the California Red-Legged Frog and other California Listed Species*, U.S. Environmental Protection Agency (Apr. 8, 2013), http://www.epa.gov/espp/litstatus/effects/redleg-frog.

[36] Rick A. Relyea, *A Cocktail of Contaminants: How Mixtures of Pesticides at Low Concentrations Affect Aquatic Communities*, 159 Oecologia 363, 363 (2009).

on several taxonomic groups." Relyea (2009) notes that "[a]lthough the subsequent impact on the terrestrial population of frogs was not determined (nor estimated via modeling), the sheer magnitude of the larval amphibian mortality would have negative impacts on amphibian populations over time, particularly if these exposures occurred repeatedly." The study also reminds that "amphibian declines [are] occurring throughout the world, including at sites that appear to be relatively pristine but are subjected to atmospheric transport of pesticides at low concentrations from distant areas" – in other words, pesticides do not have to be applied close to a species' habitat to cause harm.

808. 2,4-D is toxic to, and may be used in or impact the range of, the following species and critical habitat that have been listed or designated since 1989: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Kauai Cave Amphipod (listed 2000, critical habitat 2003); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit

(listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern rifffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

809. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to 2,4-D. This information shows that 2,4-D may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by 2,4-D. For example, there are new studies, new information on toxicity and presence in watersheds, and new information regarding the extent of use.

810. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of 2,4-D that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the 2,4-D registrations in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has stated that it asked registrants for "information on the proximity of Federally listed freshwater vascular plants, birds, mammals, and non-target terrestrial plants (there are no listed estuarine/marine invertebrates) to the 2,4-D use sites."

811. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by 2,4-D. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by 2,4-D. The list of species that may be affected by 2,4-D is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

812. For example, the Puerto Rican crested toad was addressed in the 1989 BiOp. A member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by 2,4-D.

813. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by 2,4-D. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by 2,4-D in the future.

814. EPA's failure to ensure that 2,4-D does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on 2,4-D may impair recovery of species impacted by 2,4-D, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on 2,4-D is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by 2,4-D are preserved and remain free from injury.

815. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, 2,4-D could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

816. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which 2,4-D affects listed species and their habitats and, if necessary, would suggest reasonable and

prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on 2,4-D with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of 2,4-D.

817. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to 2,4-D do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

818. Reinitiation of consultation regarding 2,4-D is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding 2,4-D did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Acephate[37] (1989 BiOp):

819. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over acephate, and EPA has discretion to influence or change acephate use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

820. In its 2006 RED for acephate, EPA determined that "[e]ndangered species LOCs except for fish (estuarine and freshwater) and estuarine invertebrates are exceeded for all uses of acephate. In addition, LOCs are exceeded for endangered species of mammals, amphibians, birds, reptiles, insects,

[37] The current EPA Case Number and EPA PC Code for acephate are 0042, 103301.

and freshwater invertebrates for the degradate methamidophos formed from all uses of acephate." The RED acknowledges that the 1989 BiOp "found jeopardy [from acephate] to three bird species," "proposed Reasonable and Prudent Alternatives (RPAs) to avoid the likelihood of jeopardizing the continued existence of these species," and "had Reasonable and Prudent Measures (RPMs) to reduce incidental take of two amphibians, five aquatic invertebrates and 19 fish species." The RED, however, also asserts that "the findings expressed in the [1989 Biological Opinion] . . . are based on old labels, uses, and application methods, less refined risk assessment procedures, and an older approach to consultation," and that "EPA's current assessment of ecological risks uses both more refined methods to define ecological risks of pesticides and new data, such as that for spray drift." The RED concludes that "the Reasonable and Prudent Measures (RPMs) in the [1989 BiOp] may need to be reassessed and modified based on these new approaches," and also claims that EPA "is currently engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service under section 7(a)(1) of the Endangered Species Act. The objective of this review is to clarify and develop consistent processes for endangered species risk assessments and consultations."

821. In 2011, the EPA determined that acephate is "likely to adversely affect" the Bay checkerspot butterfly, California clapper rail, California fresh water shrimp, California tiger salamander, salt marsh harvest mouse, San Francisco garter snake, San Joaquin kit fox, and valley elderberry longhorn beetle.

822. Acephate is a pesticide that has now been found to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: crustaceans, insects, fish, and amphibians. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

823. On October 14, 2008, EPA completed product reregistration for acephate, and EPA has issued new approvals for pesticide products since 1989.

824. Acephate is toxic to, and may be used in or impact the range of, the following species and critical habitat that have been listed or designated since 1989: Arroyo toad (listed 1994, critical

habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical

habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

825. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to acephate. This information shows that acephate may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by acephate. As EPA itself acknowledges, new labels, uses, and application methods may be affecting species or critical habitat in a manner and to an extent not previously considered. New analysis procedures, new assessment procedures, and new information regarding exposure and impacts means that acephate may be affecting species or critical habitat in a manner and to an extent not previously considered. And new data, such as that for spray drift, is available.

826. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of acephate that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the acephate registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has stated that it "is currently engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service. . . ."

827. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by acephate. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by acephate. The list of species that may be affected by acephate is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

828. For example, the Higgins eye pearlymussel was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts

to observe the species during visits to habitats where the species can be found and may be affected by acephate.

829. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by acephate. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by acephate in the future.

830. EPA's failure to ensure that acephate does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on acephate may impair recovery of species impacted by acephate, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on acephate is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by acephate are preserved and remain free from injury.

831. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, acephate could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

832. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which acephate affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on acephate with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of acephate.

833. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These

injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to acephate do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

834. Reinitiation of consultation regarding acephate is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding acephate did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Aldicarb[38] (1989 BiOp):

835. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over aldicarb, and EPA has discretion to influence or change aldicarb use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

836. In its 2007 RED, EPA states that "use of aldicarb has direct adverse effects on listed species in the following taxonomic groups: terrestrial invertebrates, birds, terrestrial phase amphibians, reptiles, mammals, freshwater fish, freshwater invertebrates, estuarine/marine invertebrates, and estuarine/marine fish," but that "EPA is not requiring specific aldicarb label language at the present time relative to threatened and endangered species." The RED claims that "EPA is currently engaging in informal consultations with the Fish and Wildlife Service and the National Marine Fisheries Service," and that the "likelihood of potential impacts to endangered species will need to be assessed for all counties in which: 1) crops registered for aldicarb use are grown; and 2) contain habitat for at least one listed species."

[38] The current EPA Case Number and EPA PC Code for aldicarb are 0140, 098301.

837. Aldicarb is a pesticide that has now been found to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, mollusks, crustaceans, insects, fish, reptiles, and amphibians. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

838. Aldicarb (or its degradate) has been found by the USGS (2007) to be present in a dozen U.S. watersheds where susceptible species exist as well (see Exhibit B).

839. On July 14, 2009, EPA completed product reregistration for aldicarb, and EPA has issued new approvals for pesticide products since 1989.

840. Since 1989, the following species and critical habitat have been listed or designated that may be affected by aldicarb: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991);

Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

841. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to aldicarb. This information shows that aldicarb may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by aldicarb. For example, there now exists new toxicity information, new information regarding presence in watersheds, as well as new labels and application methods, and new assessment procedures.

842. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of aldicarb that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the aldicarb registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has stated that it has engaged in discussions

with the Fish and Wildlife Service and the National Marine Fisheries Service regarding aldicarb, and documents from those discussions may reveal new information.

843. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by aldicarb. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by aldicarb. The list of species that may be affected by aldicarb is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

844. For example, the Higgins eye pearlymussel was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during visits to habitats where the species can be found and may be affected by aldicarb.

845. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by aldicarb. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by aldicarb in the future.

846. EPA's failure to ensure that aldicarb does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on aldicarb may impair recovery of species impacted by aldicarb, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on aldicarb is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by aldicarb are preserved and remain free from injury.

847. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, aldicarb could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

848. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which aldicarb affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on aldicarb with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of aldicarb.

849. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to aldicarb do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

850. Reinitiation of consultation regarding aldicarb is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding aldicarb did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Atrazine[39] (1989 BiOp):

851. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over atrazine, and EPA has discretion to influence or change atrazine use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

[39] The current EPA Case Number and EPA PC Code for atrazine are 0062, 080803.

852. EPA's 2006 RED for atrazine notes that it was "one of 109 active ingredients included in the [1989 BiOp]," and that the 1989 BiOp, specifically in regard to atrazine, "found jeopardy to nine species of freshwater fish, two freshwater crustaceans, four amphibians and twelve species of plants . . ." However, EPA also states that the RPAs, RPMs, and findings in the 1989 BiOp "are based on old labels and application methods, less refined risk assessment procedures and an older approach to consultation which is currently being revised through interagency collaboration."

853. In a June 27, 2002, letter to EPA, the FWS explained that atrazine is wide ranging, highly transportable, and that EPA's risk assessments have thus far failed to appropriately address issues like sublethal impacts and endocrine disruption. The letter also contained recommendations for mitigation of atrazine's impacts.

854. Atrazine is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of atrazine are likely to exceed LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

855. Atrazine is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, mollusks, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

856. A 2008 study[40] examined the relationship between frog diseases and pesticides and showed "that the widely used herbicide, atrazine, was the best predictor (out of more than 240 plausible

[40] Jason R. Rohr, Anna M. Schotthoefer, Thomas R. Raffel, Hunter J. Carrick, Neal Halstead, Jason T. Hoverman, Catherine M. Johnson, Lucinda B. Johnson, Camilla Lieske, Marvin D. Piwoni, Patrick K. Schoff & Val R. Beasley, *Agrochemicals Increase Trematode Infections in a Declining Amphibian Species*, 455 Nature 1235, 1235 (2008).

candidates) of the abundance of larval trematodes (parasitic flatworms) in the declining northern leopard frog *Rana pipiens* . . ."

857. Similarly, Rohr et al. (2004)[41] found high atrazine levels lead to increased larval energy expenditures and that resource limitations and drying conditions, coupled with environmentally realistic concentrations of atrazine, can contribute to amphibian declines.

858. Boone et al. (2003)[42] examined the effects that typical environmental concentrations of an insecticide (carbaryl) and an herbicide (atrazine) have on body mass, development, and survival of frogs (southern leopard frog, *Rana sphenocephala*), toads, (American toad, *Bufo americanus*) and two salamander species that are candidates for listing under the ESA (spotted salamander, *Ambystoma maculatum*; small-mouthed salamander, *A. texanum*). Exposure to atrazine had negative effects on body size, development, and time to metamorphosis in frog and toad species. Interactions from mixing were noted as well. A significant atrazine-by-carbaryl interaction resulted in smaller and less developed spotted salamander larvae than in control ponds. Researchers found that carbaryl reduced survival of salamanders, that atrazine had adverse effects on anuran mass and time to metamorphosis, and that both chemicals interacted with other natural factors.

859. The 2007 USGS Report found that atrazine, the most heavily used herbicide in the U.S. during the USGS study period, was present in about 75 percent of stream samples and about 40 percent of ground-water samples collected in agricultural areas across the Nation. Of particular concern for USGS was the fact that "eleven pesticides that have been identified as potential endocrine disruptors (Keith, 1997) were among the pesticides most frequently detected in NAWQA water samples from agricultural and urban streams (atrazine, metolachlor, alachlor, metribuzin, trifluralin, simazine, 2,4-D, chlorpyrifos, carbaryl, malathion, and dieldrin)." Atrazine (or its degradate) has been found by the USGS in numerous watersheds where susceptible species exist as well (see Exhibit B).

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[41] Jason R. Rohr, Adria. A. Elskus, Brian S. Shepherd, Philip H. Crowley, Thomas M. McCarthy, John H. Niedzwiecki, Tyler Sager, Andrew Sih & Brent D. Palmer, *Multiple Stressors and Salamanders: Effects of an Herbicide, Food Limitation, and Hydroperiod*, 14 Ecological Applications 1028 (2004).

[42] Michelle D. Boone & Stacy M. James, *Interactions of an Insecticide, Herbicide, and Natural Stressors in Amphibian Community Mesocosms*, 13 Ecological Applications, 829 (2003).

860. Atrazine has been found to disrupt sexual development of frogs at concentrations 30 times lower than levels allowed by EPA.[43] The Hayes et al. (2002) study exposed frogs to low levels of atrazine, levels which can often be found in the environment. The results showed that these low levels of atrazine demasculinized male frogs, preventing male characteristics from fully forming – Hayes found hermaphroditism in frogs at exposure levels as low as 0.1 ppb, far below the level established by EPA as safe for aquatic organisms. Hayes et al. (2002) noted that amphibians are at great risk because the highest atrazine levels coincide with the breeding season for amphibians.

861. Another study by the USGS, from 2010, found that atrazine affects fish reproduction.[44] Fish were exposed to 0-50 micrograms per liter of atrazine – exposure levels less than the EPA Aquatic Life Benchmark of 65 micrograms per liter for chronic exposure of fish. The study shows that the normal reproductive cycling of fathead minnows was disrupted by atrazine. It also showed that fish did not spawn as much or as well when exposed to atrazine and that total egg production was lower in all atrazine-exposed fish. There were also abnormalities in the reproductive tissues of both males and females. The study also pointed out that atrazine concentrations are greatest in streams in spring, which is when most fish in North America are attempting to reproduce.

862. In 2009, EPA determined that atrazine is likely to adversely affect the California red-legged frog and the Delta smelt.

863. On June 26, 2008, EPA completed product reregistration for atrazine, and EPA has issued new approvals for pesticide products since 1989.

864. Since 1989, the following species and critical habitat have been listed or designated that may be affected by atrazine: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005);

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[43] Tyrone B. Hayes, Atif Collins, Melissa Lee, Magdelena Mendoza, Nigel Noriega, A. Ali Stuart & Aaron Vonk, Hermaphroditic, *Demasculinized Frogs After Exposure to the Herbicide Atrazine at Low Ecologically Relevant Doses*, 99 Proc. Nat'l Acad. Sci. 5476 (2002); Tyrone B. Hayes, Paola Case, Sarah Chui, Duc Chung, Cathryn Haeffele, Kelly Haston, Melissa Lee, Vien Phoung Mai, Youssra Marjuoa, John Parker & Mable Tsui, *Pesticide Mixtures, Endocrine Disruption, and Amphibian Declines: Are We Underestimating the Impact?*, 114 Envtl. Health Persp. 40 (2006).

[44] Donald E. Tillitt, Diana M. Papoulias, Jeffrey J. Whyte & Catherine A. Richter, *Atrazine Reduces Reproduction in Fathead Minnow (Pimephales promelas)*, 99 Aquatic Toxicology 149 (2010).

California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Salt Creek tiger beetle (listed 2005, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004);

Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

865. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to atrazine. This information shows that atrazine may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by atrazine. EPA itself has acknowledged that new labels, uses, and application methods may be affecting species or critical habitat in a manner and to an extent not previously considered. Similarly, atrazine is being used in more areas than previously and is pervasive as it was one of the most frequently detected pesticides in the USGS sampled waterways. Further, there now exist numerous new studies that were never considered in the 1989 Biological Opinion because these studies did not exist until after 1989.

866. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of atrazine that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the atrazine registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA's own statements (e.g., regarding "interagency collaboration") indicate that EPA and the Services possess such evidence. Similarly, statements from the FWS indicate that they too may possess evidence.

867. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by atrazine. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by atrazine. The list of species that may be affected by atrazine is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

868. For example, the Cape Fear shiner was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by atrazine.

869. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by atrazine. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by atrazine in the future.

870. EPA's failure to ensure that atrazine does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on atrazine may impair recovery of species impacted by atrazine, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on atrazine is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by atrazine are preserved and remain free from injury.

871. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, atrazine could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

872. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which atrazine affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on atrazine with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of atrazine.

873. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to atrazine do not affect listed species and Plaintiffs' members'

cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

874. Reinitiation of consultation regarding atrazine is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding atrazine did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Bensulide[45] (1989):

875. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over bensulide, and EPA has discretion to influence or change bensulide use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

876. EPA's 2006 IRED for bensulide states: "In general, the acute levels of concern for bensulide are exceeded for freshwater fish, including those for threatened or endangered species, and for freshwater invertebrates." The IRED notes that "[c]onsultations with the Fish and Wildlife Service may be necessary to assess risks to newly listed species or from proposed new uses," and that "EPA is developing a program . . . to identify all pesticides whose use may cause adverse impacts on endangered and threatened species and to implement mitigation measures that will eliminate the adverse impacts." However, the EPA then only refers to "voluntary county-specific bulletins" to conclude that "[b]ecause the Agency is taking this approach for protecting endangered and threatened species, it is not imposing label modifications at this time through the RED."

877. Bensulide is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration

[45] The current EPA Case Number and EPA PC Code for bensulide are 2035, 009801.

for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

878. On July 12, 2006, EPA completed product reregistration for bensulide, and EPA has issued new approvals for pesticide products since 1989.

879. Since 1989, the following species and critical habitat have been listed or designated that may be affected by bensulide: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010).

880. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to bensulide. This information shows that bensulide may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by bensulide. For example, there now exists new toxicity information as well as new uses.

881. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of bensulide that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the bensulide registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA likely possesses information regarding bensulide in light of its Endangered Species Program.

882. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by bensulide. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in

these areas and may be impacted by bensulide. The list of species that may be affected by bensulide is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

883. For example, the Cape Fear shiner was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by bensulide.

884. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by bensulide. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by bensulide in the future.

885. EPA's failure to ensure that bensulide does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on bensulide may impair recovery of species impacted by bensulide, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on bensulide is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by bensulide are preserved and remain free from injury.

886. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, bensulide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

887. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which bensulide affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on bensulide with the

Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of bensulide.

888. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to bensulide do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

889. Reinitiation of consultation regarding bensulide is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding bensulide did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Brodifacoum[46] (1993 BiOp):

890. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over brodifacoum, and EPA has discretion to influence or change brodifacoum use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

891. The 1993 BiOp (pages II-10 to II-16) includes RPAs for the Carolina northern flying squirrel ("prohibit the outdoor use of the chemical, within the species' occupied habitat"), Florida salt marsh vole ("Prohibit use of brodifacoum within 100 yards of the landward edge of the species' habitat in Levy County, Florida"), Fresno kangaroo rat ("Prohibit outdoor brodifacoum use within 100 yards of [the] species' occupied habitat. . . . EPA must establish a monitoring enforcement program"), Morro Bay kangaroo rat ("prohibit the use of brodifacoum within 100 yards of the occupied habitat of the

[46] The current EPA Case Number and EPA PC Code for brodifacoum are 2755, 112701.

Morro Bay kangaroo rat"), and Audubon's crested caracara ("prohibit the use of the pesticide within the occupied habitat of the species"), and RPMs for the Giant kangaroo rat and Tipton kangaroo rat ("Prohibit outdoor brodifacoum use within 100 yards of these species' occupied habitats"), Louisiana black bear ("prohibit the use of the chemical within the occupied habitat of the Louisiana black bear"), San Joaquin kit fox ("Outdoor application of brodifacoum baits within the range of the San Joaquin kit fox shall be placed in tamper resistant bait boxes and shall not be placed in areas accessible to wildlife"), Stephen's kangaroo rat ("prohibit the use of brodifacoum within 100 yards of occupied habitat"), and Eastern indigo snake ("conduct laboratory studies using surrogate snake species to obtain toxicity data on the chemical's secondary poisoning hazard to snakes").

892. Subsequent to the 1993 BiOp, the following, in part, have occurred in regard to brodifacoum:

- California Department of Fish and Game, March 1, 2007, Pesticide Laboratory Report: "Conclusion: Although it is difficult to correlate liver residues with exposure concentration, these residues are several times higher than liver residues found in animals that had received a lethal dose of brodifacoum (Meenen et al. 1999). Coupled with extensive internal hemorrhaging, these residues make it highly likely that the kit fox died as a result of brodifacoum exposure."

- EPA, Proposed Risk Mitigation Decision for Nine Rodenticides, January 17, 2007: "EPA's comparative ecological risk assessment concludes that all nine rodenticide active ingredients pose significant risks to non-target wildlife when applied as grain-based bait products. The risks to wildlife are from primary exposure (direct consumption of rodenticide bait) for all compounds and secondary exposure (consumption of prey by predators or scavengers with rodenticide stored in body tissues) from the anticoagulants. Secondary exposure to the second-generation anticoagulants is particularly problematic due to the compounds' high toxicity and long persistence in body tissues (liver retention half-lives of greater than 300 days). The second-generation anticoagulants are designed to be toxic in "a single feeding," but since time-to-death is several days, the target rodent can feed multiple times before death, leading to a carcass containing residues that may be many times the lethal dose. Additionally, the extended persistence in the body of second-generation anticoagulants can result in additive adverse effects from multiple feedings that are separated by days to weeks. EPA's comparative ecological risk assessment followed multiple lines of evidence and concluded that the second-generation anticoagulants have greater potential to adversely affect non-target wildlife, especially birds, than the first-generation anticoagulants. These lines of evidence include acute toxicity, persistence of compounds in body tissues of primary consumers (i.e., bait eaters), information from laboratory and pen studies in which poisoned prey are fed to predators or scavengers in various amounts for one or more days, data from field trials and operational control programs, and wildlife mortality

incidents. In some wildlife mortality incident reports, the relationship between rodenticide exposure and incident outcome is not established, although in many cases the examining toxicologist concluded that a rodenticide likely caused or contributed to the mortality."

- EPA, Risk Mitigation Decision for Ten Rodenticides (May 28, 2008): EPA found that incident reports have identified many taxa of non-target animals exposed to rodenticides, including strict carnivores such as mountain lions, bobcats, hawks and owls; omnivores such as coyotes, foxes, skunks and raccoons; and granivores and herbivores such as squirrels and deer. EPA's ecological incident report documents anticoagulant residues in 27 avian species and 17 mammalian species. The document states: "In March 2005, EPA initiated informal consultation for the nine rodenticides registered at that time. Several reported incidents have involved Federally listed threatened and endangered species, for example the San Joaquin kit fox and Northern spotted owl, in addition to the Bald eagle, which is protected under the Bald and Golden Eagle Act. . . . EPA believes that widespread exposures to second-generation anticoagulants are occurring wherever those rodenticides are being used. Residue analyses indicate that exposure is widespread in non-target populations. In New York, second-generation anticoagulants were detected in 48% of 265 (15 species) diurnal raptors and owls analyzed, including 81% of 53 great horned owls, 58% of 78 red-tailed hawks, and 45% of 22 Eastern screech-owls. In California, second-generation anticoagulants were detected in 71 to 84% of the 106 bobcats, mountain lions, and San Joaquin kit foxes analyzed. Although comparable data from other states are lacking, EPA suspects that the results from New York and California are representative of non-target wildlife exposures nationwide. . . . Through informal consultation, EPA and FWS are working together to determine an appropriate plan of action for the rodenticides."

- DPR 2012, Memorandum: Second Generation Anticoagulant Rodenticides (draft) from Deborah Daniels, DVM,Senior Environmental Scientist (September 19, 2012): Recent data from DPR indicates that there has been an increase in rodenticide exposure in California. Between 1995 and 2011, approximately 73% of animals tested had residues of at least one SGAR. Difethialone residues were found in approximately 8% of the animals analyzed. Bromadiolone residues were found in approximately 37% of the animals analyzed, and bromadiolone was likely involved in approximately 3% of animal mortalities. Brodifacoum was the most widespread and lethal SGAR. Brodifacoum residues were found in approximately 69% of the 492 animals tested by DPR, and brodifacoum was likely involved in 13% of animal mortalities.

- Compilation of Rodenticide Wildlife Mortality Incidents Reported Between 1971-2012 Compilation of Reported Wildlife Incidents Associated with Rodenticide Products Containing Brodifacoum, Difethialone, Chlorophacinone, Diphacinone, Warfarin, or Bromethalin, January 29, 2013: showing brodifacoum in San Joaquin kit fox, as well as death to San Joaquin kit fox, in 1987, 1999, 2000, 2002, 2003, 2007, 2011.

893. The following species have been listed and critical habitat designated since 1991 that may be affected by brodifacoum: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005);

California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (critical habitat 2009); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

894. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to brodifacoum. This information shows that brodifacoum may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by brodifacoum. For example, new labels, uses, products, and application methods may be affecting species or critical habitat in a manner and to an extent not previously considered. Similarly, the new information shows brodifacoum is being used in more areas than previously and is more pervasive as it frequently detected in non-target animals, including endangered species; and is more toxic than previously considered. In addition, there

now exist new studies, data, and analyses that were never considered in the Biological Opinion because this information did not exist until after 1993.

895. Moreover, the information shows that the amount or extent of the take specified in the1993 BiOp's incidental take statements has been exceeded: As stated in the 1993 BiOp, "if even one dead specimen is discovered whose death is attributable to the legal use of pesticides, then use of that pesticide must cease in all occupied habitat of the species and consultation on that chemical for that species must be reinitiated." The new information reveals that dead specimens of the San Joaquin kit fox have been discovered.

896. Further, the 2009 FOIA response shows that EPA has no system in place to identify whether, or how much, take is occurring. 50 CFR 402.14(i)(3) states that "[i]n order to monitor the impacts of incidental take, the Federal agency or any applicant must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement." The 1993 BiOp, in regard to the Fresno kangaroo rat, states that "[t]o minimize anticipated incidental take, EPA must establish a monitoring enforcement program." The EPA FOIA response shows that EPA has no "monitoring enforcement program" in place.

897. Additional information also likely exists in the possession of the EPA or Services demonstrating either a) the amount or extent of taking specified in the 1993 incidental take statement is exceeded, b) new information revealing effects of brodifacoum that may affect listed species or critical habitat in a manner or to an extent not previously considered, or c) modification of the brodifacoum registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. As EPA has stated, it has been involved in discussions with the Services regarding rodenticides.

898. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by brodifacoum. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by brodifacoum. The list of species that may be affected by brodifacoum is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

899. For example, the San Joaquin kit fox was part of the 1993 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by brodifacoum.

900. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by brodifacoum. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by brodifacoum in the future.

901. EPA's failure to ensure that brodifacoum does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on brodifacoum may impair recovery of species impacted by brodifacoum, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on brodifacoum is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by brodifacoum are preserved and remain free from injury.

902. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, brodifacoum could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

903. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which brodifacoum affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on brodifacoum with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of brodifacoum.

904. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to brodifacoum do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

905. Reinitiation of consultation regarding brodifacoum is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding brodifacoum did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Bromadiolone[47] (1993 BiOp):

906. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over bromadiolone, and EPA has discretion to influence or change bromadiolone use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

907. Bromadiolone is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of bromadiolone are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, and reptiles.

908. Bromadiolone is a pesticide that is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal

[47] The current EPA Case Number and EPA PC Code for bromadiolone are 2760, 112001.

concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

909. According to EPA's 2008 findings regarding rodenticides: "In March 2005, EPA initiated informal consultation for the nine rodenticides registered at that time. Several reported incidents have involved Federally listed threatened and endangered species, for example the San Joaquin kit fox and Northern spotted owl, in addition to the Bald eagle, which is protected under the Bald and Golden Eagle Act. . . . The [1993 FWS] jeopardy determinations . . . primarily recommend prohibiting use in habitat occupied by listed species and requiring tamper-resistant bait stations for outdoor placements for some uses. . . . Since rodenticide use is widespread and secondary exposure issues with these compounds are complex and may include listed species that migrate, the Federally-defined action area may be extensive. Through informal consultation, EPA and FWS are working together to determine an appropriate plan of action for the rodenticides. . . . EPA's comparative ecological risk assessment concludes that each of the rodenticide active ingredients poses significant risks to non-target wildlife when applied as grain-based bait products. The risks to wildlife are from primary exposure (direct consumption of rodenticide bait) for all compounds and secondary exposure (consumption of prey by predators or scavengers with rodenticide stored in body tissues) from the anticoagulants. Secondary exposure to the second-generation anticoagulants [such as bromadiolone] is particularly problematic due to these compounds' high toxicity and long persistence in body tissues (e.g., liver retention half-lives of greater than 300 days). . . . EPA's comparative ecological risk assessment evaluated multiple lines of evidence and concluded that the second-generation anticoagulants have greater potential to adversely affect non-target wildlife, especially birds, than the first-generation anticoagulants. These lines of evidence include acute toxicity, persistence of compounds in body tissues of primary consumers (i.e., bait eaters), information from laboratory and pen studies in which poisoned prey are fed to predators or scavengers in various amounts for one or more days, data from field trials and operational control programs, and wildlife mortality incidents. EPA believes that widespread exposures to second-generation anticoagulants are occurring wherever

those rodenticides are being used. Residue analyses indicate that exposure is widespread in non-target populations."

910. On June 29, 2011, EPA completed product reregistration for bromadiolone, and EPA has issued new approvals for pesticide products since 1993.

911. In addition, the following species have been listed and critical habitat designated since 1991 that may be affected by bromadiolone: Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (critical habitat 2009); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

912. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to bromadiolone. This information shows that bromadiolone may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by bromadiolone. For example, new uses, new studies, and new toxicity information all demonstrate a need for reinitiation. Similarly, the new information shows bromadiolone is being used in more areas than previously and is more pervasive as it frequently detected in non-target animals, including endangered species; and is more toxic than previously considered.

913. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of bromadiolone that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the bromadiolone registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has engaged in discussions with the FWS, and these discussions may reveal new information.

914. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by bromadiolone. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by bromadiolone. The list of species that may be affected by bromadiolone is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

915. For example, the San Joaquin kit fox was part of the 1993 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by bromadiolone.

916. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by bromadiolone. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by bromadiolone in the future.

917. EPA's failure to ensure that bromadiolone does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on bromadiolone may impair recovery of species impacted by bromadiolone, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on bromadiolone is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by bromadiolone are preserved and remain free from injury.

918. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, bromadiolone could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

919. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which bromadiolone affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on bromadiolone with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of bromadiolone.

920. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to bromadiolone do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

921. Reinitiation of consultation regarding bromadiolone is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding bromadiolone did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Bromethalin[48] (1993 BiOp):

922. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over bromethalin, and EPA has discretion to influence or change bromethalin use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

[48] The current EPA Case Number and EPA PC Code for bromethalin are 2765, 112802.

923. Bromethalin is a nerve toxicant that causes respiratory distress, and "EPA's [2008] comparative ecological risk assessment concludes that each of the rodenticide active ingredients [including bromethalin] poses significant risks to non-target wildlife when applied as grain-based bait products. The risks to wildlife are from primary exposure (direct consumption of rodenticide bait) for all compounds [and] . . . [a]lthough the non-anticoagulant rodenticides appear to be much less hazardous to secondary consumers, confirmatory data are still needed to make this assumption for bromethalin and cholecalciferol baits." EPA has also noted that "USFWS in 1993 determined that bromethalin would put 10 mammalian species in jeopardy [such as the Carolina northern flying squirrel]."

924. In addition, the following species have been listed and critical habitat designated since 1991 that may be affected by bromethalin: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Kauai Cave Amphipod (listed 2000, critical habitat 2003); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical

habitat 2006); Louisiana black bear (critical habitat 2009); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

925. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to bromethalin. This information shows that bromethalin may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by bromethalin. For example, there now exists new exposure and new toxicity information.

926. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of bromethalin that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the bromethalin registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has engaged in discussions with the Fish and Wildlife Service, and these discussions may reveal new information.

927. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by bromethalin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by bromethalin. The list of species that may be affected by bromethalin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

928. For example, the Florida salt marsh vole was part of the 1993 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by bromethalin.

929. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted

by bromethalin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by bromethalin in the future.

930. EPA's failure to ensure that bromethalin does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on bromethalin may impair recovery of species impacted by bromethalin, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on bromethalin is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by bromethalin are preserved and remain free from injury.

931. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, bromethalin could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

932. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which bromethalin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on bromethalin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of bromethalin.

933. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to bromethalin do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would

redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

934. Reinitiation of consultation regarding bromethalin is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding bromethalin did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Captan[49] (1989 BiOp):

935. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over captan, and EPA has discretion to influence or change captan use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

936. The EPA 1999 RED (2004 amendment) for captan states that "With multiple applications, the acute endangered species LOC is exceeded for turf use, as is the chronic risk for herbivores and insectivores. Foliar turf applications and air blast applications to fruit and nut crops (except cherries) are expected to exceed high acute risk, restricted use, and endangered species LOCs for fish. LOCs are exceeded for endangered species of freshwater invertebrates for turf, almonds and peaches." EPA also noted that it "has concerns about the exposure of threatened and endangered animal and fish species to captan," and that it would be "developing a crop-based program - the Endangered Species Protection Program to identify all pesticides whose use may cause adverse impacts on endangered and threatened species, and to implement mitigation measures that will eliminate the adverse impacts. The program would require use restrictions to protect endangered and threatened species at the county level. Consultations with the Fish and Wildlife Service may be necessary to assess risks to newly listed species or from proposed new uses."

[49] The current EPA Case Number and EPA PC Code for captan are 0120, 081301.

937. Captan is a pesticide that is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

938. In 2007, the EPA determined that captan is "likely to adversely affect" the California red-legged frog.

939. In 2007, EPA completed product reregistration for captan, and EPA has issued new approvals for pesticide products since 1989.

940. The following species have been listed and critical habitat designated since 1989 that may be affected by captan: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical

habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

941. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to captan. This information shows that captan may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by the identified action. For example, there exists new toxicity information, new uses, and new exposure information.

942. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of captan that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the captan registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding captan.

943. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by captan. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by captan. The list of species that may be affected by captan is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

944. For example, the littlewing pearlymussel was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by captan.

945. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by captan. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by captan in the future.

946. EPA's failure to ensure that captan does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on captan may impair recovery of species impacted by captan, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on captan is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by captan are preserved and remain free from injury.

947. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, captan could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

948. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which captan affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on captan with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of captan.

949. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to captan do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

950. Reinitiation of consultation regarding captan is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding captan did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Carbaryl[50] (1989 BiOp):

951. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over carbaryl, and EPA has discretion to influence or change carbaryl use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

952. Carbaryl is now a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

953. Carbaryl is a pesticide for which the EPA has now indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of carbaryl are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles.

[50] The current EPA Case Number and EPA PC Code for carbaryl are 0080, 056801.

954. Carbaryl is a pesticide that is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, mollusks, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

955. EPA, in its 2007 RED for carbaryl, acknowledged that it "consulted with the US Fish and Wildlife Service (FWS) in 1989 regarding carbaryl impacts on endangered species. As a result, FWS issued a formal Biological Opinion which identified reasonable and prudent measures and alternatives to mitigate effects of carbaryl use on endangered species." EPA claims that it "is engaged in a proactive conservation review with FWS and NMFS to determine best processes to assess pesticide impacts on endangered species."

956. The USGS has detected carbaryl in over 100 watersheds where susceptible species exist as well (see Exhibit B), and it was one of the "pesticides detected most frequently in stream water" as reported by the USGS in its 2007 Report.

957. A 2008 publication addressing pesticide impacts to frogs[51] used low concentrations (10–250 lg/L) of a common insecticide, malathion. The "malathion (which rapidly breaks down) did not directly kill [the] amphibians, but initiated a trophic cascade that indirectly resulted in substantial amphibian mortality." The authors noted that "the trophic cascade is common to a wide range of insecticides (including carbaryl, diazinon, endosulfan, esfenvalerate, and pyridaben), offering the possibility of general predictions for the way in which many insecticides impact aquatic communities and the populations of larval amphibians."

958. Davidson et al. (2007)[52] looked at the combined effects of pesticide induced immunosuppression and chytrid fungus on amphibians. This disease is strongly implicated in

[51] Rick A. Relyea & Nicole Diecks, *An Unforeseen Chain Of Events: Lethal Effects Of Pesticides On Frogs At Sublethal Concentrations*, 18 Ecological Applications 1728 (2008).

[52] Carlos Davidson, Michael F. Benard, H. Bradley Shaffer, John M. Parker, Chadrick O'Leary, J. Michael Conlon & Louise A. Rollins-Smith, *Effects of Chytrid and Carbaryl Exposure on Survival, Growth and Skin Peptide Defenses in Foothill Yellow-Legged Frogs*, 41 Envtl. Sci.& Tech. 1771 (2007).

amphibian declines worldwide, with the discovery of a previously unknown chytrid fungus (*Batrachochytrium dendrobatidis*) associated with mortality in Australia, North, South, and Central America, and Europe. The Davidson et al. (2007) research was designed to examine the effects of pesticide and chytrid interactions on frogs using laboratory experiments to investigate whether low, sub-lethal doses of carbaryl, a common, current-use pesticide, affected foothill yellow-legged frog (*Rana boylii*) susceptibility to chytrid fungus. The foothill yellow legged frog's skin peptides strongly inhibited chytrid growth in vitro, which may explain why chytrid exposure did not result in significant mortality on its own. However, skin peptide defenses were significantly reduced after exposure to carbaryl suggesting that pesticides inhibit the frog's innate immune defense and increase susceptibility to the disease.

959. Metts et al. (2005)[53] also examined the impact of carbaryl. The study looked at two competing species of *Ambystoma* salamanders and the influence of salamander density and carbaryl exposure on salamander populations. Carbaryl has a negative impact on zooplankton, the primary food source of many salamander species in the aquatic life phase. The study found that zooplankton were nearly eliminated by naturally occurring concentrations of carbaryl. A lack of food sources leads to higher levels of mortality in the salamander larvae. Sharp declines in the number of larvae leads to lower levels of "recruitment," the number of individual larvae that metamorphose into adults. A reduction in recruitment is clearly important because it directly reduces the number of individuals that ultimately become adults and reproduce. Thus, pesticide induced declines in larvae survival and metamorphosis will have significant impacts on salamander populations. Metts et al. (2005) noted that "the level of mortality [found in the study] on aquatic life stages would likely have significant effects on terrestrial communities via reductions in salamander recruitment. Indeed, when both species are considered together metamorphosis was 1% and 23% . . . respectively, compared with 86% in controls." The study suggests that the combination of carbaryl exposure and population density of other species can influence the effects that chemical contaminants have on recruitment of adult salamanders.

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[53] Brian S. Metts, William A. Hopkins & John P. Nestor, *Interaction of an Insecticide with Larval Density in Pond-Breeding Salamanders (Ambystoma)*, 50 Freshwater Biology 685 (2005).

960. Another study found carbaryl becomes up to 46 times more lethal when combined with predatory stress.[54]

961. Laetz et al. (2009)[55] note that "pesticides almost always occur in mixtures with other pesticides. Analysis of NAWQA monitoring data found that > 90% of water samples from urban, agricultural, and mixed-use streams contained two or more pesticides (Gilliom 2007)." Laetz et al. found that "*in vivo* exposures to binary mixtures of OP and CB pesticides produced additive or synergistic AChE inhibition in the brains of juvenile coho salmon." The researchers pointed out that "[a]t present, diazinon, chlorpyrifos, malathion, carbaryl, and carbofuran are some of the most extensively used insecticides in California and the Pacific Northwest (California Department of Pesticide Regulation 2008)," and the "frequency with which these chemicals are detected in some salmon habitats (Table 1) and their combinatorial toxicity to juvenile salmon when they occur as mixtures suggest they may be limiting the recovery of several threatened and endangered populations . . . . This implies that single-chemical assessments will systematically underestimate actual risks to ESA-listed species in salmon-supporting watersheds where mixtures of OP and CB pesticides occur."

962. Relyea (2009)[56] researched "how a single application of five insecticides (malathion, carbaryl, chlorpyrifos, diazinon, and endosulfan) and five herbicides (glyphosate, atrazine, acetochlor, metolachlor, and 2,4-D) at low concentrations (2–16 p.p.b.) affected aquatic communities composed of zooplankton, phytoplankton, periphyton, and larval amphibians (gray tree frogs, *Hyla versicolor,* and leopard frogs, *Rana pipiens*)." The study "examined each pesticide alone, a mix of insecticides, a mix of herbicides, and a mix of all ten pesticides." Results of the study show that "a single application of insecticides and herbicides (alone and in combination at low concentrations) can have dramatic effects

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[54] Rick A. Relyea, *Predator Cues and Pesticides: A Double Dose of Danger for Amphibians*, 13 Ecological Applications 1515 (2003); Rick A. Relyea & Nathan Mills, *Predator-Induced Stress Makes the Pesticide Carbaryl More Deadly to Gray Treefrog Tadpoles (Hyla Versicolor)*, 98 Proc.Nat'l Acad. Sci. 2491 (2001).

[55] Cathy A. Laetz, David H. Baldwin, Tracy K. Collier, Vincent Hebert, John D. Stark & Nathaniel L. Scholz, *The Synergistic Toxicity of Pesticide Mixtures: Implications for Risk Assessment and the Conservation of Endangered Pacific Salmon*, 117 Envtl. Health Persp. 348, 348, 351-52 (2009).

[56] Rick A. Relyea, *A Cocktail of Contaminants: How Mixtures of Pesticides at Low Concentrations Affect Aquatic Communities*, 159 Oecologia 363 (2009).

on several taxonomic groups. For many of the taxa (zooplankton and algae) the effects of the pesticide mixtures were largely predictable from the individual pesticide effects. In contrast, mixtures of globally common pesticides (driven by the mixture of the insecticides) can cause up to 99% mortality in larval amphibians, and this effect was not completely explained by the individual pesticide effects."

963. Boone et al. (2003)[57] examined the effects that typical environmental concentrations of an insecticide (carbaryl) and an herbicide (atrazine) have on body mass, development, and survival of frogs (southern leopard frog, *Rana sphenocephala*), toads, (American toad, *Bufo americanus*) and two salamander species that are candidates for listing under the ESA (spotted salamander, *Ambystoma maculatum*; small-mouthed salamander, *A. texanum*). In creating the experiment design, the researchers noted: "In human-dominated landscapes, [combinations of stressors] can alter species community structure. Because applied research on chemical contaminants has focused on single factors, the effects that multiple anthropogenic stressors have on communities is largely unexamined. If we fail to test multifactor hypotheses, we risk proposing solutions that are too simplistic, thus failing to solve environmental problems (Hilborn and Stearns 1982) at the cost of population and species extinction." The research yielded varied results based on the types of chemicals tested and species exposed to them. Salamanders were virtually eliminated in carbaryl treatments, indicating that at realistic levels, this insecticide could cause population declines for salamanders in contaminated habitats. Carbaryl also had negative effects on toad survival. Exposure to atrazine had negative effects on body size, development, and time to metamorphosis in frog and toad species, which were associated with reduced chlorophyll levels. Both chemicals interacted significantly with species density or hydroperiod (the time a wetland is inundated with water), indicating that the environmental conditions could influence the impact of a contaminant.

964. The green sturgeon was listed under the ESA in 2006 and has received a final rule designating critical habitat. The rule notes that pesticides are likely a very serious threat to the green sturgeon and singles out carbaryl:[58]

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[57] Michelle D. Boone & Stacy M. James, *Interactions of an Insecticide, Herbicide, and Natural Stressors in Amphibian Community Mesocosms*, 13 Ecological Applications 829 (2003).

[58] 74 Fed. Reg. 52300 (October 9, 2009).

> The application of pesticides may adversely affect prey resources and water quality within the bays and estuaries. For example, in Willapa Bay and Grays Harbor, the use of carbaryl in association with aquaculture operations reduces the abundance and availability of burrowing ghost shrimp, an important prey species for green sturgeon (Moser and Lindley 2007; Dumbauld *et al.* 2008).

965. In 2009, EPA completed product reregistration for carbaryl, and EPA has issued new approvals for pesticide products since 1989.

966. The following species have been listed and critical habitat designated since 1989 that may be affected by carbaryl: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004);

Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

967. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to carbaryl. This information shows that carbaryl may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by the identified action. For example, new studies exist, new data exist, new information regarding watershed presence exists, and new toxicity information exists.

968. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of carbaryl that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the carbaryl registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA's own statements (e.g., EPA "is engaged in a proactive conservation review" with the Services) indicate that EPA and the Services possess evidence.

969. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by carbaryl. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in

these areas and may be impacted by carbaryl. The list of species that may be affected by carbaryl is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

970. For example, the Cape Fear shiner was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by carbaryl.

971. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by carbaryl. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by carbaryl in the future.

972. EPA's failure to ensure that carbaryl does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on carbaryl may impair recovery of species impacted by carbaryl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on carbaryl is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by carbaryl are preserved and remain free from injury.

973. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, carbaryl could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

974. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which carbaryl affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on carbaryl with the

Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of carbaryl.

975. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to carbaryl do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

976. Reinitiation of consultation regarding carbaryl is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding carbaryl did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Chlorophacinone[59] (1993 BiOp):

977. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over chlorophacinone, and EPA has discretion to influence or change chlorophacinone use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

978. EPA's 2008 rodenticide findings explain that "[i]n March 2005, EPA initiated informal consultation for the nine rodenticides registered at that time. Several reported incidents have involved Federally listed threatened and endangered species, for example the San Joaquin kit fox and Northern spotted owl, in addition to the Bald eagle, which is protected under the Bald and Golden Eagle Act. . . . EPA's comparative ecological risk assessment concludes that each of the rodenticide active ingredients poses significant risks to non-target wildlife when applied as grain-based bait products. The risks to

[59] The current EPA Case Number and EPA PC Code for chlorophacinone are 2100, 067707.

wildlife are from primary exposure (direct consumption of rodenticide bait) for all compounds and secondary exposure (consumption of prey by predators or scavengers with rodenticide stored in body tissues) from the anticoagulants. . . . Since rodenticide use is widespread and secondary exposure issues with these compounds are complex and may include listed species that migrate, the Federally-defined action area may be extensive. Through informal consultation, EPA and FWS are working together to determine an appropriate plan of action for the rodenticides. Meanwhile, the mitigation measures set forth in this document should have the beneficial effect of reducing non-target wildlife exposures to rodenticides, and thus refining the scope of the endangered species risk assessment work remaining to be completed, particularly for the second-generation anticoagulants. EPA's comparative ecological risk assessment evaluated multiple lines of evidence and concluded that the second-generation anticoagulants have greater potential to adversely affect non-target wildlife, especially birds, than the first-generation anticoagulants. These lines of evidence include acute toxicity, persistence of compounds in body tissues of primary consumers (i.e., bait eaters), information from laboratory and pen studies in which poisoned prey are fed to predators or scavengers in various amounts for one or more days, data from field trials and operational control programs, and wildlife mortality incidents. EPA believes that widespread exposures to second-generation anticoagulants are occurring wherever those rodenticides are being used. Residue analyses indicate that exposure is widespread in non-target populations."

979. In September and November of 2009, the FWS requested consultation regarding diphacinone and chlorophacinone. The letters noted that: "The list of species potentially affected by anticoagulants is larger now than at the time of the 1993 Biological Opinion. There are more than twice as many species now listed under ESA thereby increasing the chances of listed species potentially be adversely affected . . . ."

980. In 2011, EPA completed product reregistration for chlorophacinone, and EPA has issued new approvals for pesticide products since 1993.

981. The following species have been listed and critical habitat designated since 1991 that may be affected by chlorophacinone: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005);

California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (critical habitat 2009); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

982. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to chlorophacinone. This information shows that chlorophacinone may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by chlorophacinone. For example, there now exists new exposure and new toxicity information, as well as new data and analyses.

983. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of chlorophacinone that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of

the chlorophacinone registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has engaged in discussions with the FWS, and these discussions may reveal new information.

984. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by chlorophacinone. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by chlorophacinone. The list of species that may be affected by chlorophacinone is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

985. For example, the Florida panther was part of the 1993 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by chlorophacinone.

986. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by chlorophacinone. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by chlorophacinone in the future.

987. EPA's failure to ensure that chlorophacinone does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on chlorophacinone may impair recovery of species impacted by chlorophacinone, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on chlorophacinone is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by chlorophacinone are preserved and remain free from injury.

988. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the

environment. Absent EPA's registration and continuing discretionary control and involvement, chlorophacinone could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

989. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which chlorophacinone affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on chlorophacinone with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of chlorophacinone.

990. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to chlorophacinone do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

991. Reinitiation of consultation regarding chlorophacinone is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding chlorophacinone did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Chlorothalonil[60] (1989 BiOp):

992. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over chlorothalonil, and EPA has discretion to influence or change chlorothalonil use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately

[60] The current EPA Case Number and EPA PC Code for chlorothalonil are 0097, 081901.

suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

993. In its 1999 RED, EPA noted that "the registered uses of chlorothalonil may adversely affect endangered species of birds (chronically), mammals (chronically), freshwater fish (acutely and chronically), freshwater invertebrates (acutely) and aquatic plants. Mollusks which may be at risk include freshwater mussels (a phylum that includes numerous freshwater endangered species). The Endangered Species Protection Program is expected to become final at sometime in the future. Limitations in the use of chlorothalonil may be required at that time to protect endangered and threatened species, but these limitations have not been defined and may be formulation-specific. EPA anticipates that a consultation with the Fish and Wildlife Service may be conducted in accordance with the species-based priority approach described in the Program."

994. Chlorothalonil is now known to be an endocrine disrupter. Endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

995. Chlorothalonil is also now known to be"highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

996. Chlorothalonil has been detected by USGS in U.S. watersheds where susceptible species exist as well (see Exhibit B).

997. In 2009, EPA completed product reregistration for chlorothalonil, and EPA has issued new approvals for pesticide products since 1989.

998. The following species have been listed and critical habitat designated since 1989 that may be affected by chlorothalonil: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical

habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern rifffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed

1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

999. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to chlorothalonil. This information shows that chlorothalonil may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by chlorothalonil. For example, new toxicity information and watershed information now exists.

1000. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of chlorothalonil that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the chlorothalonil registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding chlorothalonil.

1001. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by chlorothalonil. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by chlorothalonil. The list of species that may be affected by chlorothalonil is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1002. For example, the Alabama cave shrimp was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by chlorothalonil.

1003. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by chlorothalonil. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by chlorothalonil in the future.

1004. EPA's failure to ensure that chlorothalonil does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on chlorothalonil may impair recovery of species impacted by chlorothalonil, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on chlorothalonil is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by chlorothalonil are preserved and remain free from injury.

1005. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, chlorothalonil could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1006. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which chlorothalonil affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on chlorothalonil with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of chlorothalonil.

1007. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to chlorothalonil do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1008. Reinitiation of consultation regarding chlorothalonil is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding chlorothalonil did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Chlorpyrifos[61] (1989):

1009. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over chlorpyrifos, and EPA has discretion to influence or change chlorpyrifos use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1010. In 2000, the EPA acknowledged that "Endangered species LOCs are exceeded for small mammals, birds, freshwater fish and invertebrates, and estuarine fish and invertebrates for most chlorpyrifos uses. Chlorpyrifos is used widely throughout the country with a large number of crop and non-crop uses with residues found in 26 percent of fish sampled from 314 monitoring sites. Hence, there is high potential for many endangered and threatened species to be exposed to chlorpyrifos."

1011. In a 2007 study, Eidels et al. found that three out of nine Indiana bat tissue samples sent through FWS to be tested for toxicants contained chlorpyrifos, methyl parathion and diazinon. Chlorpyrifos was also detected in all six of the dead bats found during the FWS mid-winter surveys in Ray's and Wyandotte Caves.[62]

1012. In a study done by the USGS, pesticide transport from the Central Valley of California was found to impact frog species in the Sierra Nevada mountain range.[63] The study found that the most

[61] The current EPA Case Number and EPA PC Codes for chlorpyrifos are 0100, 059101.

[62] Ronny R. Eidels, John O. Whitaker, Jr., Daniel W. Sparks, *Insecticide Residues in Bats and Guano from Indiana*, 116 Proc. Ind. Acad. of Sci. 50 (2007).

[63] Donald W. Sparling, Gary M. Fellers & Laura L. McConnell, *Pesticides and Amphibian Population Declines in California*, 20 Envtl. Toxicology & Chemistry 1591 (2001); *see also* James S. LeNoir, Laura L. McConnell, Gary M. Fellers, Thomas M. Cahill & James N. Seiber, *Summertime Transport of*

drastic population declines of several frog species (red-legged frog, *Rana aurora*, yellow-legged frog, *Rana boylii*, mountain yellow-legged frog, *Rana muscosa*, and Yosemite toad, *Bufo canorus*) are found in the Sierra Nevadas, downwind from the San Joaquin Valley. In 1998, over 60% of the total pesticide usage in the state of California was sprayed in the San Joaquin Valley. The study found a close correlation between the declining populations of frogs and exposure to agricultural pesticides. Particularly, the study found diazinon, endosulfan, and chlorpyrifos at toxic levels in over half the frogs tested.

1013. Spalding and Fellers (2009) looked at the effects of two insecticides, chlorpyrifos and endosulfan, on the common pacific tree frog (*P. regilla*) and the endangered foothills yellow legged frog (*R. boylii*).[64] They note that: "The most commonly used insecticides include the organochlorine endosulfan and cholinesterase-inhibiting organophosphorus insecticides such as chlorpyrifos, diazinon, and malathion. . . .These insecticides are found in air, snow, and surface waters of National Parks and other sites in the Sierra Nevada Mountains. They have also been detected in amphibian tissues." The results of Spalding and Fellers' research shows that both chlorpyrifos and endosulfan are highly toxic to *P. regilla* and *R. boylii* and that *R. boylii* is more sensitive to these insecticides than is *P. regilla.* For chlorpyrifos, the median lethal concentrations were in the few hundreds of a part per billion range, and the estimated LC50 for *P. regilla* was approximately five times greater than that for *R. boylii*. The authors note the implications of their study on conservation issues: "Environmentally realistic concentrations of insecticides in the Sierra Nevada Mountains of California may have the ability to inflict serious damage on native amphibians. . . . [E]xposure to chlorpyrifos and endosulfan poses serious risk to amphibians in the Sierra Nevada Mountains."

1014. The 2007 USGS Report found that "concentrations of pesticides were frequently greater than water-quality benchmarks for aquatic life and fish-eating wildlife": "In urban streams, most concentrations greater than a benchmark involved the insecticides diazinon (73 percent of sites),

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Current-Use Pesticides from California's Central Valley to the Sierra Nevada Mountain Range, 18 Envtl. Toxicology & Chemistry 2715 (1999).

[64] Donald W. Sparling & Gary M. Fellers, *Toxicity of Two Insecticides to California Anurans and its Relevance to Declining Amphibian Populations*, 28 Envtl. Toxicology 1696 (2009).

chlorpyrifos (37 percent), and malathion (30 percent). In agricultural streams, most concentrations greater than a benchmark involved chlorpyrifos (21 percent of sites), azinphos-methyl (19 percent), atrazine (18 percent), *p,p'*-DDE (16 percent), and alachlor (15 percent)."

1015. Chlorpyrifos has now been found by the USGS in over 100 watersheds where susceptible species exist as well (see Exhibit B).

1016. Relyea (2009)[65] researched "how a single application of insecticides (malathion, carbaryl, chlorpyrifos, diazinon, and endosulfan) and herbicides (glyphosate, atrazine, acetochlor, metolachlor,s and 2,4-D) at low concentrations (2–16 p.p.b.) affected aquatic communities composed of zooplankton, phytoplankton, periphyton, and larval amphibians (gray tree frogs, *Hyla versicolor,* and leopard frogs, *Rana pipiens*)." Results of the study show that "a single application of insecticides and herbicides (alone and in combination at low concentrations) can have dramatic effects on several taxonomic groups."

1017. In 2009, the EPA determined that chlorpyrifos is likely to adversely affect the California red-legged frog, Delta smelt, California tiger salamander, San Francisco garter snake, California clapper rail, salt marsh harvest mouse, Bay checkerspot butterfly, valley elderberry longhorn beetle, San Joaquin kit fox and California freshwater shrimp.

1018. Chlorpyrifos is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

1019. Chlorpyrifos is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of chlorpyrifos are likely to exceed to LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles.

1020. Chlorpyrifos is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, mollusks,

[65] Rick A. Relyea, *A Cocktail of Contaminants: How Mixtures of Pesticides at Low Concentrations Affect Aquatic Communities*, 159 Oecologia 363 (2009).

crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1021. In 2008, EPA completed product reregistration for chlorpyrifos and EPA has issued new approvals for pesticide products since 1989.

1022. The following species have been listed and critical habitat designated since 1989 that may be affected by chlorpyrifos: Alabama moccasinshell (listed 1993, critical habitat 2004); Alabama sturgeon (listed 2000, critical habitat 2009); American burying beetle (listed 1989); Appalachian Elktoe (listed 1994, critical habitat 2002); Arroyo toad (listed 1994, critical habitat 2011); Behren's fritillary (listed 1997); Blue shiner (listed 1992); Bog turtle (Northern DPS) (listed 1997); Bonytail chub (critical habitat 1994); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); California tiger salamander (Central California DPS) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Callippe silverspot (listed 1997); Chipola slabshell (listed 1998, critical habitat 2007); Chiricahua leopard frog (listed 2002, critical habitat 2012); Clubshell (listed 1993); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Desert tortoise (critical habitat 1994); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Florida salt marsh vole (listed 1991); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Giant garter snake (listed 1993); Gulf moccasinshell (listed 1998, critical habitat 2007); Gulf sturgeon (listed 1991, critical habitat 2003); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mitchell's satyr butterfly (listed 1991); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Myrtle's silverspot (listed 1992); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Northern riffleshell (listed 1993); Northern spotted owl (listed 1990, critical habitat

2012); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Ohlone tiger beetle (listed 2001); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Piping plover (critical habitat 2001, 2002, 2008, 2009); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Razorback sucker (listed 1991, critical habitat 1994); Reticulated flatwoods salamander (listed 2009, critical habitat 2009) (listed 2009, critical habitat 2009); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Salt Creek tiger beetle (listed 2005, critical habitat 2010); Santa Ana sucker (listed 2000, critical habitat 2010); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Topeka shiner (listed 1998, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Winged mapleleaf (listed 1991).

1023. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to chlorpyrifos. This information shows that chlorpyrifos may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by chlorpyrifos. For example, there exists new studies, new toxicity information, and new information regarding widespread presence in watersheds.

1024. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of chlorpyrifos that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the chlorpyrifos registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant post-1989 information regarding chlorpyrifos.

1025. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by chlorpyrifos. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species

that live in these areas and may be impacted by chlorpyrifos. The list of species that may be affected by chlorpyrifos is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1026. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by chlorpyrifos.

1027. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by chlorpyrifos. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by chlorpyrifos in the future.

1028. EPA's failure to ensure that chlorpyrifos does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on chlorpyrifos may impair recovery of species impacted by chlorpyrifos, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on chlorpyrifos is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by chlorpyrifos are preserved and remain free from injury.

1029. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, chlorpyrifos could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1030. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which chlorpyrifos affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted,

Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on chlorpyrifos with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of chlorpyrifos.

1031. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to chlorpyrifos do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1032. Reinitiation of consultation regarding chlorpyrifos is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding chlorpyrifos did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Cypermethrin[66] (1989 BiOp):

1033. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over cypermethrin, and EPA has discretion to influence or change cypermethrin use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1034. In EPA's 2008 RED, the agency explained that "the chronic LOC is exceeded for mammals, freshwater and estuarine/marine invertebrates, and benthic organisms."

1035. Cypermethrin is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, mollusks, crustaceans, and insects.

[66] This includes both Cypermethrin and Z-Cypermethrin. Their current EPA Case Number and EPA PC Codes are 2130, 109702 and 2130, 129064, respectively.

These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1036. The following species have been listed and critical habitat designated since 1989 that may be affected by cypermethrin: Alabama moccasinshell (listed 1993, critical habitat 2004); Alabama sturgeon (listed 2000, critical habitat 2009); American burying beetle (listed 1989); Appalachian Elktoe (listed 1994, critical habitat 2002); Arroyo toad (listed 1994, critical habitat 2011); Behren's fritillary (listed 1997); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); California tiger salamander (Central California DPS) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Callippe silverspot (listed 1997); Chipola slabshell (listed 1998, critical habitat 2007); Chiricahua leopard frog (listed 2002, critical habitat 2012); Clubshell (listed 1993); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Gulf moccasinshell (listed 1998, critical habitat 2007); Gulf sturgeon (listed 1991, critical habitat 2003); Kauai Cave Amphipod (listed 2000, critical habitat 2003); Kauai Cave Wolf Spider (listed 2000, critical habitat 2003); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mitchell's satyr butterfly (listed 1991); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Myrtle's silverspot (listed 1992); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Northern rifffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Ohlone tiger beetle (listed 2001); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Razorback sucker (listed 1991, critical habitat 1994);

Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Santa Ana sucker (listed 2000, critical habitat 2010); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Topeka shiner (listed 1998, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Winged mapleleaf (listed 1991).

1037. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to cypermethrin. This information shows that cypermethrin may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by cypermethrin. For example, there now exists new toxicity information.

1038. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of cypermethrin that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the cypermethrin registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding cypermethrin.

1039. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by cypermethrin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by cypermethrin. The list of species that may be affected by cypermethrin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1040. For example, the Alabama cavefish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by cypermethrin.

1041. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by cypermethrin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by cypermethrin in the future.

1042. EPA's failure to ensure that cypermethrin does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on cypermethrin may impair recovery of species impacted by cypermethrin, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on cypermethrin is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by cypermethrin are preserved and remain free from injury.

1043. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, cypermethrin could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1044. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which cypermethrin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on cypermethrin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of cypermethrin.

1045. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to cypermethrin do not affect listed species and Plaintiffs' members'

cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1046. Reinitiation of consultation regarding cypermethrin is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding cypermethrin did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Dazomet[67] (1989 BiOp):

1047. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over dazomet, and EPA has discretion to influence or change dazomet use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1048. The EPA's 2009 amended RED finds: "The Agency's levels of concern are exceeded for acute oral consumption of dazomet granular product for both mammal and bird species."

1049. Dazomet is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of dazomet are likely to exceed to LOCs for the following taxonomic groups: mammals, birds, and reptiles.

1050. Dazomet is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

[67] The current EPA Case Number and EPA PC Code for dazomet are 2135, 035602.

1051. The following species have been listed and critical habitat designated since 1989 that may be affected by dazomet: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Kauai Cave Amphipod (listed 2000, critical habitat 2003); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1052. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to dazomet. This information shows that dazomet may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by dazomet. For example, there now exists new toxicity information, as well as new analyses, data, and procedures.

1053. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of dazomet that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the dazomet registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding dazomet.

1054. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by dazomet. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by dazomet. The list of species that may be affected by dazomet is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1055. For example, the Alabama cave shrimp was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by dazomet.

1056. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by dazomet. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by dazomet in the future.

1057. EPA's failure to ensure that dazomet does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on dazomet may impair recovery of species impacted by dazomet, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on dazomet is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by dazomet are preserved and remain free from injury.

1058. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, dazomet could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1059. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which dazomet affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on dazomet with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of dazomet.

1060. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to dazomet do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1061. Reinitiation of consultation regarding dazomet is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding dazomet did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Diazinon[68] (1989 BiOp):

1062. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over diazinon, and EPA has discretion to influence or change diazinon use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only

[68] The current EPA Case Number and EPA PC Code for diazinon are 0238, 057801.

register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1063. In its 2006 RED, EPA found that "[t]he endangered species levels of concern are exceeded for wildlife, aquatic life and terrestrial plants in semi-aquatic areas for all registered use rates of diazinon. . . . Endangered species LOCs are exceeded for multiple taxonomic groups of organisms on most application sites. The USFWS has determined that diazinon is likely to jeopardize multiple aquatic and terrestrial species. The 9/14/89 Biological Opinion, for example, lists a total of 88 federally-listed endangered/threatened aquatic and terrestrial species that the USFWS considers to be in jeopardy due to diazinon use. Corn, sorghum, cotton, and soybeans covered by this Biological Opinion are among the use sites listed in the January 22, 1999 Use Closure memo that were included in this environmental risk assessment. . . . . For all of the species listed as jeopardized the USFWS lists reasonable and prudent alternatives (RPA) to mitigate the effects of diazinon use. For some of the species listed as not jeopardized, the USFWS lists reasonable and prudent measures (RPM) and incidental take (IT) to mitigate effects. . . . Many additional species, especially aquatic species, have been federally listed as endangered/threatened since the biological opinion of 1989 was written, and determination of jeopardy to these species has not been assessed for diazinon. Additionally, recent literature does document direct biological effects on a species, i.e., chinook salmon, with populations subsequently listed as threatened and/or endangered (USFWS Species Profile 10/13/2000) or proposed for listing, e.g. Atlantic salmon (USFWS Service Species Profile 10/13/2000). As noted earlier, sublethal effects could reduce reproductive success, diminish the genetic "purity" of specific fish stocks, increase vulnerability to predation and thereby adversely impact threatened/endangered species. When the regulatory changes recommended in the IRED are implemented and the ecological effects and environmental fate data are submitted and accepted by the Agency, the Reasonable and Prudent Alternatives and Reasonable and Prudent Measures in the Biological Opinion(s) may need to be reassessed and modified based on the new information. The Agency is currently engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service under section 7(a)(1) of the

Endangered Species Act. The objective of this review is to clarify and develop consistent processes for endangered species risk assessments and consultations. Subsequent to the completion of this process, the Agency will reassess the potential effects of diazinon use to federally listed threatened and endangered species. At that time the Agency will also consider any regulatory changes recommended in the IRED that are being implemented. Until such time as this analysis is completed, the overall environmental effects mitigation strategy articulated in this document and any County Specific Pamphlets described in Section IV, which address diazinon, will serve as interim protection measures to reduce the likelihood that endangered and threatened species may be exposed to diazinon at levels of concern."

1064. A study of diazinon[69] found a close correlation between declining populations of frogs and exposure to the pesticide. Particularly, the study found diazinon, endosulfan, and chlorpyrifos at toxic levels in over half the frogs tested.

1065. The 2007 USGS Report found that diazinon was one of the pesticides detected most frequently in stream water, and it has been detected by USGS in over 100 watersheds where susceptible species exist as well (see Exhibit B).

1066. Diazinon is a known endocrine disrupter. Endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

1067. Diazinon is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of diazinon are likely to exceed to LOCs for the following taxonomic groups: birds, fish, amphibians, mollusks, crustaceans, and reptiles.

1068. Diazinon is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans,

[69] Donald W. Sparling, Gary M. Fellers & Laura L. McConnell, *Pesticides and Amphibian Population Declines in California*, 20 Envtl. Toxicology & Chemistry 1591 (2001); *see also* James S. LeNoir, Laura L. McConnell, Gary M. Fellers, Thomas M. Cahill & James N. Seiber, *Summertime Transport of Current-Use Pesticides from California's Central Valley to the Sierra Nevada Mountain Range*, 18 Envtl. Toxicology & Chemistry 2715 (1999).

insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1069. In 2007, EPA completed product reregistration for diazinon, and EPA has issued new approvals for pesticide products since 1989.

1070. The following species have been listed and critical habitat designated since 1989 that may be affected by diazinon: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa

moccasinshell (listed 1993, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1071. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to diazinon. This information shows that diazinon may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by diazinon. For example, there exist new studies, new toxicity information, new information regarding watershed presence, and new analysis information (e.g., sublethal effects).

1072. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of diazinon that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the diazinon registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA itself has stated that it "engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries."

1073. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by diazinon. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by diazinon. The list of species that may be affected by diazinon is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1074. For example, the littlewing pearlymussel was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by diazinon.

1075. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by diazinon. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by diazinon in the future.

1076. EPA's failure to ensure that diazinon does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on diazinon may impair recovery of species impacted by diazinon, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on diazinon is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by diazinon are preserved and remain free from injury.

1077. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, diazinon could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1078. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which diazinon affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on diazinon with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of diazinon.

1079. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to diazinon do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1080. Reinitiation of consultation regarding diazinon is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding diazinon did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Dicamba[70] (1989 BiOp):

1081. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over dicamba, and EPA has discretion to influence or change dicamba use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1082. EPA's 2006 RED documents that "dicamba has the potential for causing risk to endangered birds, mammals, and non-target plants. Further, potential indirect effect to any species dependent upon a species that experiences effects cannot be precluded from use of dicamba. . . . Chronic RQs exceeded LOCs for endangered mammals at all application rates modeled. Acute LOCs were exceeded for endangered birds at all application rates. LOCs were exceeded for terrestrial plants

[70] This includes dicamba and salts which includes the following (along with EPA Case Number and EPA PC Codes): dicamba (0065, 029801); dicamba, diethanolamine salt (0065, 029803); dicamba, diglycolamine salt (0065, 128931); dicamba, dimethylamine salt (0065, 029802); dicamba, isopropylamine salt (0065, 128944); dicamba, potassium salt (0065, 129043), dicamba, sodium salt (0065, 029806).

adjacent to treated areas and in semi-aquatic areas at all application rates. Following this future species-specific analysis, a determination that there is a likelihood of potential impact to a listed species or its critical habitat may result in: limitations on the use of dicamba, other measures to mitigate any potential impact, or consultations with the Fish and Wildlife Service or the National Marine Fisheries Service as necessary. . . . Until that species-specific analysis is completed, the risk mitigation measures being implemented through this RED will reduce the likelihood that endangered and threatened species may be exposed to dicamba at levels of concern. . . . EPA is not requiring specific dicamba label language at the present time relative to threatened and endangered species. If, in the future, specific measures are necessary for the protection of listed species, the Agency will implement them through the Endangered Species Protection Program."

1083. The USGS has detected dicamba in over fifty watersheds where susceptible species exist as well (see Exhibit B).

1084. Dicamba is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1085. In 2011, EPA completed product reregistration for dicamba, and EPA has issued new approvals for pesticide products since 1989.

1086. The following species have been listed and critical habitat designated since 1989 that may be affected by dicamba: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical

habitat 2005); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010);North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1087. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to dicamba. This information shows that dicamba may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by dicamba. For example, there is new toxicity information.

1088. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of dicamba that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the dicamba registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, there have been conversations amongt the agencies as part of EPA's Endangered Species Protection Program.

1089. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by dicamba. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by dicamba. The list of species that may be affected by dicamba is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1090. For example, the bonytail chub was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe

the species during frequent visits to habitats where the species can be found and may be affected by dicamba.

1091. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by dicamba. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by dicamba in the future.

1092. EPA's failure to ensure that dicamba does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on dicamba may impair recovery of species impacted by dicamba, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on dicamba is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by dicamba are preserved and remain free from injury.

1093. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, dicamba could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1094. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which dicamba affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on dicamba with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of dicamba.

1095. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These

injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to dicamba do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1096. Reinitiation of consultation regarding dicamba is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding dicamba did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Dichlorprop[71] (1989 BiOp):

1097. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over dichlorprop, and EPA has discretion to influence or change dichlorprop use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1098. EPA's 2007 dichlorprop RED states that "based on EPA's screening level assessment . . ., RQs exceed the LOCs for mammals, birds, and terrestrial plants. Additionally, chronic effects to fish and aquatic invertebrates cannot be precluded from concern for potentially affected endangered species."

1099. In 2011, EPA completed product reregistration for dichlorprop, and EPA has issued new approvals for pesticide products since 1989.

1100. The following species have been listed and critical habitat designated since 1989 that may be affected by dichlorprop: Coastal California gnatcatcher (listed 1993, critical habitat 2007);

[71] Dichlorprop includes the following (along with EPA Case Number and EPA PC Codes): 2-(2,4-DP), dimethylamine salt (0294, 031419); 2,4-DP-P, dimethylamine salt (0294, 031403); 2,4-DP-P, isooctyl ester (0294, 031465); 2,4-DP, diethanolamine salt (0294, 031416); Dichlorprop-P (0294, 031402).

Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1101. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to dichlorprop. This information shows that dichlorprop may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by dichlorprop. For example, there now exists new toxicity information.

1102. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of dichlorprop that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the dichlorprop registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding dichlorprop.

1103. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by dichlorprop. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by dichlorprop. The list of species that may be affected by dichlorprop is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1104. For example, the wood stork was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe

the species during frequent visits to habitats where the species can be found and may be affected by dichlorprop.

1105. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by dichlorprop. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by dichlorprop in the future.

1106. EPA's failure to ensure that dichlorprop does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on dichlorprop may impair recovery of species impacted by dichlorprop, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on dichlorprop is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by dichlorprop are preserved and remain free from injury.

1107. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, dichlorprop could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1108. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which dichlorprop affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on dichlorprop with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of dichlorprop.

1109. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These

injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to dichlorprop do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1110. Reinitiation of consultation regarding dichlorprop is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding dichlorprop did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Dimethoate[72] (1989 BiOp):

1111. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over dimethoate, and EPA has discretion to influence or change dimethoate use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1112. EPA's 2007 IRED explains that its "preliminary risk assessment for endangered species indicates that RQs exceed the endangered species LOC for birds and mammals. Further, potential indirect effects to any species dependent upon a species that experiences effects from use of dimethoate, can not be precluded based on the screening level ecological risk assessment. . . . From the screening level assessment, RQs exceed the endangered species LOC for some of the representative exposure scenarios considered. At the rates assessed, acute and chronic RQs exceed the LOC for endangered birds and mammal across all use sites. After a single application of 0.16 lbs a.i./A, the endangered species acute and chronic risk LOCs are exceeded for birds and mammals for some use sites. Further, potential indirect effects to any species dependent upon a species that experiences effects from use of dimethoate, can not be precluded based on the screening level ecological risk assessment. .

[72] The current EPA Case Number and EPA PC Code for dimethoate are 0088, 035001.

. . The Agency has developed the Endangered Species Protection Program to identify pesticides whose use may cause adverse impacts on endangered and threatened species, and to implement mitigation measures that address these impacts. The Endangered Species Act (ESA) requires federal agencies to ensure that their actions are not likely to jeopardize listed species or adversely modify designated critical habitat. To analyze the potential of registered pesticide uses that may affect any particular species, EPA uses basic toxicity and exposure data developed for the REDs/IREDs and considers it in relation to individual species and their locations by evaluating important ecological parameters, pesticide use information, geographic relationship between specific pesticide uses and species locations, and biological requirements and behavioral aspects of the particular species, as part of a refined species-specific analysis. When conducted, this species-specific analysis will take into consideration any regulatory changes recommended in this IRED that are being implemented at that time. . . . Following this future species-specific analysis, a determination that there is a likelihood of potential impact to a listed species or its critical habitat may result in: limitations on the use of dimethoate, other measures to mitigate any potential impact, or consultations with the Fish and Wildlife Service or the National Marine Fisheries Service as necessary. If the Agency determines use of dimethoate "may affect" listed species or their designated critical habitat, EPA will employ the provisions in the Services regulations (50 CFR Part 402). Until that species-specific analysis is completed, the risk mitigation measures being implemented through this IRED will reduce the likelihood that endangered and threatened species may be exposed to dimethoate at levels of concern. EPA is not requiring specific dimethoate label language at the present time relative to threatened and endangered species. If, in the future, specific measures are necessary for the protection of listed species, the Agency will implement them through the Endangered Species Protection Program."

1113. The listing designation for the Buena Vista Lake Shrew states that due to the close proximity of shrew habitat to an otherwise agriculturally-dominated landscape, the shrew may be "directly exposed to lethal and sublethal concentrations of pesticides from drift or direct spraying of crops, canals and ditch banks, wetland or riparian edges, and roadsides where shrews might exist."[73] The listing also specifically acknowledges the endocrine-disrupting effects of carbamates and

[73] *Endangered Status for the Buena Vista Lake Shrew*, 67 Fed. Reg. 10101 (March 6, 2002).

organophosphates, stating that "laboratory experiments have shown that behavioral activities such as rearing, exploring for food, and sniffing can be depressed for up to 6 hours in the common shrew from environmental and dietary exposure to sublethal doses of a widely used insecticide, dimethoate."

1114. Dimethoate is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1115. The following species have been listed and critical habitat designated since 1989 that may be affected by dimethoate: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Salt Creek tiger beetle (listed 2005,

critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1116. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to dimethoate. This information shows that dimethoate may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by dimethoate. For example, there now exists new toxicity information, new data regarding impacts, and new analyses procedures.

1117. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of dimethoate that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the dimethoate registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, the EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding dimethoate.

1118. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by dimethoate. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by dimethoate. The list of species that may be affected by dimethoate is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1119. For example, Judge Tait's mussel was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by dimethoate.

1120. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by dimethoate. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by dimethoate in the future.

1121. EPA's failure to ensure that dimethoate does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on dimethoate may impair recovery of species impacted by dimethoate, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on dimethoate is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by dimethoate are preserved and remain free from injury.

1122. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, dimethoate could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1123. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which dimethoate affects listed species and their habitats and, if necessary, would suggest reasonable

and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on dimethoate with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of dimethoate.

1124. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to dimethoate do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1125. Reinitiation of consultation regarding dimethoate is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding dimethoate did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Diphacinone[74] (1993 BiOp):

1126. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over diphacinone, and EPA has discretion to influence or change diphacinone use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1127. EPA's 2008 rodenticide findings explain that "in March 2005, EPA initiated informal consultation for the nine rodenticides registered at that time. Several reported incidents have involved

[74] This includes diphacinone and diphacinone, sodium salt. Their current EPA Case Number and EPA PC Code are 2205, 067701, and 2205, 067705, respectively.

Federally listed threatened and endangered species, for example the San Joaquin kit fox and Northern spotted owl, in addition to the Bald eagle, which is protected under the Bald and Golden Eagle Act. . . . The FWS issued a biological opinion on eight of the rodenticides in 1993. The jeopardy determinations for the individual compounds primarily recommend prohibiting use in habitat occupied by listed species . . . Since rodenticide use is widespread and secondary exposure issues with these compounds are complex and may include listed species that migrate, the Federally-defined action area may be extensive. . . . EPA's comparative ecological risk assessment concludes that each of the rodenticide active ingredients poses significant risks to non-target wildlife when applied as grain-based bait products. The risks to wildlife are from primary exposure (direct consumption of rodenticide bait) for all compounds and secondary exposure (consumption of prey by predators or scavengers with rodenticide stored in body tissues) from the anticoagulants. . . . Since rodenticide use is widespread and secondary exposure issues with these compounds are complex and may include listed species that migrate, the Federally- defined action area may be extensive. Through informal consultation, EPA and FWS are working together to determine an appropriate plan of action for the rodenticides. Meanwhile, the mitigation measures set forth in this document should have the beneficial effect of reducing non-target wildlife exposures to rodenticides, and thus refining the scope of the endangered species risk assessment work remaining to be completed, particularly for the second-generation anticoagulants. EPA's comparative ecological risk assessment evaluated multiple lines of evidence and concluded that the second-generation anticoagulants have greater potential to adversely affect non-target wildlife, especially birds, than the first-generation anticoagulants. These lines of evidence include acute toxicity, persistence of compounds in body tissues of primary consumers (i.e., bait eaters), information from laboratory and pen studies in which poisoned prey are fed to predators or scavengers in various amounts for one or more days, data from field trials and operational control programs, and wildlife mortality incidents. EPA believes that widespread exposures to second-generation anticoagulants are occurring wherever those rodenticides are being used. Residue analyses indicate that exposure is widespread in non-target populations."

1128. In 2009, the FWS submitted letters to EPA requesting consultation regarding diphacinone and chlorophachinone. The Letters explained: "The list of species potentially affected by

anticoagulants is larger now than at the time of the 1993 Biological Opinion. There are more than twice as many species now listed under ESA thereby increasing the chances of listed species potentially be adversely affected. Additionally, the new label expands usage of . . . diphacinone to control prairie dogs, which is a new use and one that greatly expands the potential for secondary poisoning of listed species and migratory birds. We consider the use of diphacinone to control prairie dogs to be a new use. Accordingly, we requested EPA to consider reinitiating section 7 consultation regarding the use of anticoagulants to control prairie dogs in letters to EPA dated May 5, 2006 and September 8, 2009, and in a conference call with EPA on May 19, 2006. However, this consultation has not been reinitiated. The use of these products reflects a lack of consideration for the environmental ramifications of indiscriminant toxicant use to control wildlife species . . . ."

1129. Diphacinone is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of diphacinone and salts are likely to exceed to LOCs for the following taxonomic groups: mammals, birds, and reptiles.

1130. Diphacinone is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1131. In 2012, EPA completed product reregistration for diphacinone, and EPA has issued new approvals for pesticide products since 1993.

1132. The following species have been listed and critical habitat designated since 1991 that may be affected by diphacinone: Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black

bear (critical habitat 2009); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1133. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to diphacinone. This information shows that diphacinone may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by diphacinone. For example, new toxicity information, new uses, as well as new information regarding exposure and extent of use, exist.

1134. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of diphacinone that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the diphacinone registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has engaged in discussions with the Fish and Wildlife Service, and these discussions may reveal new information.

1135. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by diphacinone. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by diphacinone. The list of species that may be affected by diphacinone is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1136. For example, the Florida panther was part of the 1993 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by diphacinone.

1137. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by diphacinone. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by diphacinone in the future.

1138. EPA's failure to ensure that diphacinone does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on diphacinone may impair recovery of species impacted by carbaryl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on diphacinone is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by diphacinone are preserved and remain free from injury.

1139. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, diphacinone could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1140. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which diphacinone affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on diphacinone with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of diphacinone.

1141. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to diphacinone do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1142. Reinitiation of consultation regarding diphacinone is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding diphacinone did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Diuron[75] (1989 BiOp):

1143. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over diuron, and EPA has discretion to influence or change diuron use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1144. EPA's 2003 RED determined that "[e]ndangered species LOCs for diuron are exceeded for terrestrial plants, herbivorous mammals and herbivorous and insectivorous birds from all uses; freshwater fish and crustaceans from all uses but cotton; and mollusks and estuarine fish from the uses on grapes and nonagricultural sites. . . . Many additional species, especially aquatic species, have been federally listed as endangered/threatened since the biological opinion of 1989 was written; determination of potential effect to most of these species has not yet been assessed for diuron. . . . In addition, endangered plants, birds, and mammals were not considered in the 1989 Biological Opinion. . . . These need to be addressed along with newly listed aquatic species and the non-crop uses of diuron for all species other than Pacific salmon and steelhead because the 1989 biological opinion dealt only with crop uses. Finally, not only are more refined methods to define ecological risks of pesticides being used, but also new data that did not exist in 1989, such as that for spray drift, are now available. The RPMs in the 1989 opinion may need to be re-assessed and consultation reinitiated, as appropriate. . . . The Agency has developed the Endangered Species Protection Program to identify pesticides whose use may cause adverse impacts on endangered and threatened species, and to implement mitigation measures that address these impacts. EPA is not requiring specific label language at the present time

[75] The current EPA Case Number and EPA PC Code for diuron are 0046, 035505.

relative to threatened and endangered species. The general risk mitigation required through this RED will serve to protect listed species of potential concern until such time as the agency refines its risk assessment for birds, mammals, aquatic species and plants from the uses of diuron. If in the future, specific measures are necessary for the protection of listed species, the Agency will implement them through the Endangered Species Protection Program. The Endangered Species Protection Program as described in a Federal Register notice (54 FR 27984-28008, July 3, 1989) is currently being implemented on an interim basis. As part of the interim program, the Agency has developed County Specific Pamphlets that articulate many of the specific measures outlined in the Biological Opinions issued to date. The Pamphlets are available for voluntary use by pesticide applicators on EPA's website at www.epa.gov/espp."

1145. The USGS has detected diuron in over 100 watersheds where susceptible species exist as well (see Exhibit B), and diuron was reported as frequently detected in the USGS 2007 Report.

1146. Diuron is now a known endocrine disrupter. Endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

1147. Diuron is a pesticide now kwnown to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1148. In 2008, EPA completed product reregistration for diuron, and EPA has issued new approvals for pesticide products since 1989.

1149. The following species have been listed and critical habitat designated since 1989 that may be affected by diuron: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed

2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1150. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to diuron. This information shows that diuron may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been

listed or critical habitat designated that may be affected by diuron. Indeed, as EPA itself acknowledges, new labels, uses, and application methods may be affecting species or critical habitat in a manner and to an extent not previously considered. Changed analysis procedures, new assessment procedures, and new information regarding exposure and impacts means that diuron may be affecting species or critical habitat in a manner and to an extent not previously considered. And new data, such as that for spray drift, is available.

1151. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of diuron that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the diuron registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding diuron.

1152. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by diuron. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by diuron. The list of species that may be affected by diuron is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1153. For example, the Alabama cavefish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by diuron.

1154. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by diuron. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by diuron in the future.

1155. EPA's failure to ensure that diuron does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on diuron may impair recovery of species impacted by diuron, or may make it more likely

that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on diuron is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by diuron are preserved and remain free from injury.

1156. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, diuron could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1157. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which diuron affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on diuron with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of diuron.

1158. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to diuron do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1159. Reinitiation of consultation regarding diuron is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding diuron did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Ethoprop[76] (1989 BiOp):

1160. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over ethoprop, and EPA has discretion to influence or change ethoprop use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1161. EPA's 2006 ethoprop IRED states: "Endangered species LOCs for ethoprop are exceeded for birds, mammals, and both freshwater fish and invertebrates and estuarine fish. . . . The U.S. Fish and Wildlife Service (FWS) has assessed the potential impacts of ethoprop on endangered species. In 1983, under EPA's "Corn Cluster" consultation, risks to birds, mammals, fish, reptiles, and aquatic species were triggered as being in jeopardy. . . . In a "reinitiation" of the assessment for all crops in 1989, the FWS found jeopardy to endangered birds and seven fish species, and provided several Reasonable and Prudent Alternatives to remove the jeopardy determination. In addition, the FWS had Reasonable and Prudent Measures (RPMs) to reduce incidental take of 24 fish species, 25 mussel species, two aquatic crustaceans species, and one bird species. These consultations and the findings expressed in the Opinions, however, are based on old labels and application methods, less refined risk assessment procedures, and an older approach to consultation which is currently being revised through interagency collaboration. Because the Agency's current assessment of ecological risks uses both more refined methods to define ecological risks of pesticides and new data, such as that for spray drift, the RPMs in the Biological Opinion(s) may need to be reassessed and modified based on these new approaches. . . . The Agency is currently engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service under section 7(a)(1) of the Endangered Species Act. The objective of this review is to clarify and develop consistent processes for endangered species risk assessments and consultations. Subsequent to the completion of this process, the Agency will reassess

[76] The current EPA Case Number and EPA PC Code for ethoprop are 0106, 041101.

the potential effects of ethoprop use to Federally listed threatened and endangered species. At that time, the Agency will also consider any regulatory changes implemented as a result of the ethoprop IRED."

1162. The USGS has detected ethoprop in over 50 watersheds where susceptible species exist as well (see Exhibit B).

1163. Ethoprop is now known to be"highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, crustaceans, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1164. In 2006, EPA completed product reregistration for ethoprop, and EPA has issued new approvals for pesticide products since 1989.

1165. The following species have been listed and critical habitat designated since 1989 that may be affected by ethoprop: Frosted flatwoods salamander (listed 1999, critical habitat 2009); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Blue shiner (listed 1992); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Lower keys rabbit (listed 1990); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell

(listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997).

1166. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to ethoprop. This information shows that ethoprop may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by ethoprop. For example, there exist new labels and application methods, more refined risk assessment procedures, new approaches to addressing impacts, and new data, such as that for spray drift.

1167. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of ethoprop that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the ethoprop registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, the EPA is currently engaged in a "Proactive Conservation Review" with the Services.

1168. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by ethoprop. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by ethoprop. The list of species that may be affected by ethoprop is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1169. For example, the Cape Fear shiner was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by ethoprop.

1170. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by ethoprop. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by ethoprop in the future.

1171. EPA's failure to ensure that ethoprop does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on ethoprop may impair recovery of species impacted by carbaryl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on ethoprop is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by ethoprop are preserved and remain free from injury.

1172. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, ethoprop could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1173. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which ethoprop affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on ethoprop with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of ethoprop.

1174. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to ethoprop do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1175. Reinitiation of consultation regarding ethoprop is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding ethoprop did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Malathion[77] (1989 BiOp):

1176. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over malathion, and EPA has discretion to influence or change malathion use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1177. In its 2009 malathion RED, EPA determined that it "identified several exceedences of the acute and chronic endangered LOC in certain cases for birds, mammals, fish and invertebrates should exposures actually occur at modeled levels. . . . The Agency recently completed an endangered species risk assessment of the potential effects of malathion on the threatened California red-legged frog (*Rana aurora draytonii*; CRLF) arising from current uses of malathion (USEPA 2007*b*). . . . The assessment resulted in a determination that the use of pesticide products containing malathion is likely to adversely affect the CRLF. This determination is based on the potential for malathion to both directly and indirectly affect the species and result in modification to designated critical habitat. Toxicity values used in this endangered species assessment in some cases indicate greater toxicity than those used in the malathion RED. Although the RED was published in 2006, following completion of the organophosphate cumulative assessment, the ecological risk assessment for the RED was compiled in 1999, prior to the regular incorporation of open literature ecotoxicological (ECOTOX) data into EFED risk assessments. Review of the open literature data resulted in a number of lower toxicity endpoints. Risk conclusions are similar, in that listed species LOCs are exceeded, but the risk quotients (RQs) presented in this endangered species assessment are higher than corresponding RQs in the RED.

[77] The current EPA Case Number and EPA PC Code for malathion are 0248, 057701.

. . . At this time, the Agency is not requiring label changes specific to the protection of listed species for malathion. If, in the future, specific measures are necessary for the protection of listed species, the Agency will implement them through the Endangered Species Protection Program. . . . Following this future species-specific analysis, a determination that there is a likelihood of potential impact to a listed species or its critical habitat may result in: limitations on the use of malathion; other measures to mitigate any potential impact; or consultations with the Fish and Wildlife Service or the National Marine Fisheries Service as necessary. If the Agency determines that use of malathion "may affect" listed species or their designated critical habitat, EPA will employ the provisions in the Services regulations (50 CFR Part 402). Until that species-specific analysis is completed, the risk mitigation measures being implemented through this RED will reduce the likelihood that endangered and threatened species may be exposed to malathion at levels of concern. EPA is not requiring specific malathion label language at the present time relative to threatened and endangered species. If, in the future, specific measures are necessary for the protection of listed species, the Agency will implement them through the Endangered Species Protection Program."

1178. Malathion is now known to be"highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, fish, amphibians, mollusks, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1179. A 2008 publication[78] examined low concentrations (10–250 lg/L) of a common insecticide, malathion. The "malathion (which rapidly breaks down) did not directly kill [the] amphibians, but initiated a trophic cascade that indirectly resulted in substantial amphibian mortality." The authors noted that "the trophic cascade is common to a wide range of insecticides (including carbaryl, diazinon, endosulfan, esfenvalerate, and pyridaben), offering the possibility of general

[78] Rick A. Relyea & Nicole Diecks, *An Unforeseen Chain Of Events: Lethal Effects Of Pesticides On Frogs At Sublethal Concentrations*, 18 Ecological Applications 1728 (2008).

predictions for the way in which many insecticides impact aquatic communities and the populations of larval amphibians."

1180. Another study found that malathion decreases hatching success by 6.5% and viability rates by 17%.[79] The primary malformations documented in the two highest pesticide concentrations were ventralization and axial shortening. After seven weeks of development in water with no malathion, tadpoles previously exposed as embryos for only 96 h to 60 and 600 g/L malathion suffered increased parasite encystment rates when compared to controls. Research identifies embryonic development as a sensitive window for establishing latent susceptibility to infection in later developmental stages.

1181. Another study found that northern leopard frogs exposed to sublethal levels of DDT and malathion produced dramatically fewer antibodies.[80] The study suggests that frogs exposed to pesticides have immune system changes similar to frogs exposed to immunosuppressants.

1182. Another study found that limb deformities in wood frogs due to exposure to trematode infection are more common at sites adjacent to agricultural runoff.[81] The study concludes that stress due to pesticide exposure decreases tadpoles' ability to resist infection.

1183. Relyea (2009)[82] researched "how a single application of five insecticides (malathion, carbaryl, chlorpyrifos, diazinon, and endosulfan) and five herbicides (glyphosate, atrazine, acetochlor, metolachlor, and 2,4-D) at low concentrations (2–16 p.p.b.) affected aquatic communities composed of zooplankton, phytoplankton, periphyton, and larval amphibians (gray tree frogs, *Hyla versicolor*, and leopard frogs, *Rana pipiens*)." The study "examined each pesticide alone, a mix of insecticides, a mix

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[79] Sarah A. Budischak, Lisa K. Belden & William A. Hopkins, *Effects of Malathion on Embryonic Development and Latent Susceptibility to Trematode Parasites in Ranid Tadpoles*, 27 Envtl. Toxicology & Chemistry 2496 (2008).

[80] Mary-Kate Gilbertson, G. Douglas Haffner, Ken G. Drouillard, Anathea Albert & Brian Dixon, *Immunosuppression in the Northern Leopard Frog (Rana Pipiens) Induced by Pesticide Exposure*, 22 Envtl. Toxicology & Chemistry 101 (2003).

[81] Joseph M. Kiesecker, *Synergism Between Trematode Infection and Pesticide Exposure: A Link to Amphibian Limb Deformities in Nature?*, 99 Proc. Nat'l Acad. Sci. 9900 (2002).

[82] Rick A. Relyea, *A Cocktail of Contaminants: How Mixtures of Pesticides at Low Concentrations Affect Aquatic Aommunities*, 159 Oecologia 363 (2009).

of herbicides, and a mix of all ten pesticides." Instead of testing the infinite pesticide combinations possible, Relyea selected a few broad combinations to determine if any of the concentrations caused deleterious effects unique to chemical mixing. Results of the study show that "a single application of insecticides and herbicides (alone and in combination at low concentrations) can have dramatic effects on several taxonomic groups. For many of the taxa (zooplankton and algae) the effects of the pesticide mixtures were largely predictable from the individual pesticide effects. In contrast, mixtures of globally common pesticides (driven by the mixture of the insecticides) can cause up to 99% mortality in larval amphibians, and this effect was not completely explained by the individual pesticide effects."

1184. The USGS has detected malathion in over 100 watersheds where susceptible species exist as well (see Exhibit B), and the USGS 2007 Report found high occurrences of malathion.

1185. The following species have been listed and critical habitat designated since 1989 that may be affected by malathion: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010)' Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991);

Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1186. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to malathion. This information shows that malathion may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by malathion. For example, new studies and new toxicity information now exist, as well as new information regarding presence in U.S. waters.

1187. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of malathion that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the malathion registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding malathion.

1188. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by malathion. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by malathion. The list of species that may be affected by malathion is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1189. For example, Judge Tait's mussel was part of the 1993 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by malathion.

1190. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by malathion. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by malathion in the future.

1191. EPA's failure to ensure that malathion does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on malathion may impair recovery of species impacted by carbaryl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on malathion is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by malathion are preserved and remain free from injury.

1192. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, malathion could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1193. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which malathion affects listed species and their habitats and, if necessary, would suggest reasonable

and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on malathion with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of malathion.

1194. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to malathion do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1195. Reinitiation of consultation regarding malathion is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding malathion did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Mancozeb[83] (1989 BiOp):

1196. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over mancozeb, and EPA has discretion to influence or change mancozeb use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1197. EPA's 2005 mancozeb RED states: **"**Available screening-level information for mancozeb indicate a potential concern for chronic effects on listed species of birds and mammals, acute and chronic effects on listed species of freshwater fish and freshwater invertebrates, and acute effects

[83] The current EPA Case Number and EPA PC Code for mancozeb are 0643, 014504.

on listed species of estuarine/marine fish should exposure actually occur. . . . The Agency has developed the Endangered Species Protection Program. . . . If the Agency determines that the use of mancozeb "may affect" listed species or their designated critical habitat, EPA will employ provisions in the Services regulations (50 CFR Part 402). Until that species-specific analysis is complete, the risk mitigation measures being implemented through this RED will reduce the likelihood that endangered and threatened species may be exposure to mancozeb at levels of concern."

1198. Mancozeb is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1199. Researchers have examined the effects of continuous exposure to environmentally relevant concentrations of two common pesticides, endosulfan and mancozeb, on the growth and survival of leopard frog tadpoles.[84] Exposure to both mancozeb and endosulfan resulted in significant mortality among the tadpoles. Growth rates were reduced by exposure to mancozeb, though not by exposure to endosulfan. Results demonstrated that even low concentrations, (0.2 µg/L endosulfan and 16 µg/L mancozeb), which may well be expected in water bodies around agricultural fields, can be lethal, or can inhibit growth when sublethal.

1200. The following species have been listed and critical habitat designated since 1989 that may be affected by mancozeb: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California

[84] Kausalya Shenoy, B. Thomas Cunningham, James W. Renfroe & Philip H. Crowley, *Growth and Survival of Northern Leopard Frog (Rana Pipiens) Tadpoles Exposed to Two Common Pesticides*, 28 Envtl. Toxicology & Chemistry 1469 (2009).

gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern rifffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1201. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to mancozeb. This information shows that mancozeb may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by mancozeb. For example, there exists new studies and new toxicity information.

1202. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of mancozeb that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the mancozeb registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding mancozeb.

1203. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by mancozeb. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by mancozeb. The list of species that may be affected by mancozeb is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1204. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by mancozeb.

1205. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by mancozeb. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by mancozeb in the future.

1206. EPA's failure to ensure that mancozeb does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on mancozeb may impair recovery of species impacted by carbaryl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery

harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on mancozeb is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by mancozeb are preserved and remain free from injury.

1207. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, mancozeb could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1208. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which mancozeb affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on mancozeb with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of mancozeb.

1209. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to mancozeb do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1210. Reinitiation of consultation regarding mancozeb is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding mancozeb did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Methomyl[85] (1989):

1211. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over methomyl, and EPA has discretion to influence or change methomyl use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1212. Methomyl is now a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

1213. Methomyl is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of methomyl are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, and reptiles.

1214. Methomyl is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1215. The USGS has detected methomyl in waterways across the nation where susceptible species exist as well, as documented in the USGS 2007 Report and Exhibit B.

1216. In 2011, EPA completed product reregistration for methomyl, and EPA has issued new approvals for pesticide products since 1989.

[85] The current EPA Case Number and EPA PC Code for methomyl are 0028, 090301.

1217. The following species have been listed and critical habitat designated since 1989 that may be affected by methomyl: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical

habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1218. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to methomyl. This information shows that methomyl may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by methomyl. For example, new toxicity information now exists as does information regarding presence in waters, as well as new analyses procedures.

1219. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of methomyl that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the methomyl registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding mancozeb.

1220. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by methomyl. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by methomyl. The list of species that may be affected by methomyl is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1221. For example, Alabama cavefish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe

the species during frequent visits to habitats where the species can be found and may be affected by methomyl.

1222. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by methomyl. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by methomyl in the future.

1223. EPA's failure to ensure that methomyl does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on methomyl may impair recovery of species impacted by methomyl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on methomyl is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by methomyl are preserved and remain free from injury.

1224. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, methomyl could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1225. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which methomyl affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on methomyl with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of methomyl.

1226. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These

injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to methomyl do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1227. Reinitiation of consultation regarding methomyl is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding methomyl did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Naled[86] (1989):

1228. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over naled, and EPA has discretion to influence or change naled use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1229. EPA's 2006 RED determined that: "Endangered species LOCs for naled are exceeded for birds . . . mammals . . . aquatic species . . . freshwater invertebrates . . . [and] freshwater . . . estuarine invertebrates. . . . Naled was also included in the reinitiated Biological Opinion of 1989 from the USFWS. In this opinion, the Service found jeopardy to six species of amphibians, 32 species of freshwater fish, two species of mussels and five species of freshwater invertebrates from the uses on crops, pasture and rangeland and as a mosquito larvicide. . . . Reasonable and Prudent Alternatives were given for each jeopardized species. Reasonable and Prudent Measures were also given for 55 non-jeopardized species to minimize incidental take of these species. These consultations and the findings expressed in the Opinions, however, are based on old labels and application methods, less refined risk assessment procedures and an older approach to consultation which is currently being revised through

[86] The current EPA Case Number and EPA PC Code for naled are 0092, 034401.

interagency collaboration. EPA's current assessment of ecological risks uses both more refined methods to define ecological risks of pesticides and new data, such as that for spray drift. Therefore, the Reasonable and Prudent Alternatives and Reasonable and Prudent Measures in the Biological Opinion(s) may need to be reassessed and modified based on these new approaches. The Agency is currently engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service under section 7(a)(1) of the Endangered Species Act. The objective of this review is to clarify and develop consistent processes for endangered species risk assessments and consultations. Subsequent to the completion of this process, the Agency will reassess the potential effects of naled use to federally listed threatened and endangered species. . . . The Agency has developed the Endangered Species Protection Program to identify pesticides whose use may cause adverse impacts on endangered and threatened species, and to implement mitigation measures that address these impacts. The Endangered Species Act requires federal agencies to ensure that their actions are not likely to jeopardize listed species or adversely modify designated critical habitat. To analyze the potential of registered pesticide uses to affect any particular species, EPA puts basic toxicity and exposure data developed for REDs into context for individual listed species and their locations by evaluating important ecological parameters, pesticide use information, the geographic relationship between specific pesticide uses and species locations, and biological requirements and behavioral aspects of the particular species. This analysis will take into consideration any regulatory changes recommended in this RED that are being implemented at this time. A determination that there is a likelihood of potential impact to a listed species may result in limitations on use of the pesticide, other measures to mitigate any potential impact, or consultations with the Fish and Wildlife Service and/or the National Marine Fisheries Service as necessary."

1230. Naled is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1231. In 2007, EPA completed product reregistration for naled, and EPA has issued new approvals for pesticide products since 1989.

1232. The following species have been listed and critical habitat designated since 1989 that may be affected by naled: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Bonytail chub (critical habitat 1994); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern rifffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Purple bankclimber (listed 1998, critical habitat 2007); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1233. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to naled. This information shows that naled may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by naled. For example, new labels and application methods, more refined risk assessment procedures, and new toxicty data exist.

1234. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of naled that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the naled registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA is "engaged in a Proactive Conservation Review" with the Services.

1235. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by naled. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by naled. The list of species that may be affected by naled is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1236. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by naled.

1237. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by naled. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by naled in the future.

1238. EPA's failure to ensure that naled does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on naled may impair recovery of species impacted by naled, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the

interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on naled is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by naled are preserved and remain free from injury.

1239. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, naled could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1240. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which naled affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on naled with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of naled.

1241. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to naled do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1242. Reinitiation of consultation regarding naled is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding naled did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Oxydemeton-methyl[87] (1989 BiOp)

1243. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over oxydemeton-methyl, and EPA has discretion to influence or change oxydemeton-methyl use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1244. EPA's 2006 RED for oxydemeton-methyl explains: "Endangered species LOCs for ODM are exceeded for acute risks to birds and mammals for all application rates and feed items except for expected residues on seeds from rates less than 0.75 lbs ai/A. Since ODM is an insecticide, it is assumed that endangered terrestrial invertebrates, including insects, are potentially at risk. ODM was included in the reinitiated Biological Opinion of 1989 from the US Fish and Wildlife Service for its use on several field crops and in forestry for use on douglas fir. In this opinion, the Service found jeopardy to one amphibian species, the Wyoming toad, and four species of freshwater fish."

1245. Oxydemeton-methyl is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, crustaceans, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1246. In 2007, EPA completed product reregistration for oxydemeton-methyl, and EPA has issued new approvals for pesticide products since 1989.

1247. The following species have been listed and critical habitat designated since 1989 that may be affected by oxydemeton-methyl: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004);

[87] The current EPA Case Number and EPA PC Code for oxydemeton-methyl are 0258, 058702.

Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1248. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to oxydemeton-methyl. This information shows that oxydemeton-methyl may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by oxydemeton-methyl. For example, there now exists new toxicity information.

1249. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of oxydemeton-methyl that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the oxydemeton-methyl registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered

Species Program for many years and very likely has significant information regarding oxydemeton-methyl.

1250. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by oxydemeton-methyl. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by oxydemeton-methyl. The list of species that may be affected by oxydemeton-methyl is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1251. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by oxydemeton-methyl.

1252. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by oxydemeton-methyl. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by oxydemeton-methyl in the future.

1253. EPA's failure to ensure that oxydemeton-methyl does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on oxydemeton-methyl may impair recovery of species impacted by oxydemeton-methyl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on oxydemeton-methyl is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by oxydemeton-methyl are preserved and remain free from injury.

1254. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement,

oxydemeton-methyl could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1255. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which oxydemeton-methyl affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on oxydemeton-methyl with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of oxydemeton-methyl .

1256. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to oxydemeton-methyl do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1257. Reinitiation of consultation regarding oxydemeton-methyl is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding oxydemeton-methyl did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Oxyfluorfen[88] (1989 BiOp):

1258. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over oxyfluorfen, and EPA has discretion to influence or change oxyfluorfen use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend

[88] The current EPA Case Number and EPA PC Code for oxyfluorfen are 2490, 111601.

registered pesticides, pesticide labeling, or particular pesticide uses at any time. U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1259. Oxyfluorfen is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of oxyfluorfen are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, and reptiles.

1260. Oxyfluorfen is a pesticide that now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, crustaceans, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1261. EPA's 2002 RED found that "oxyfluorfen exceeds the endangered species LOCs for the following combinations of analyzed uses and species: terrestrial plants for all uses; avian chronic for non-bearing citrus and all applications with rates greater than 0.5 lb ai/acre/application (such as rights-of-way, apples, walnuts and grapes) based on both maximum and mean residue levels; mammalian chronic for non-bearing citrus, and applications with rates of 2 lbs ai/acre (such as rights-of-way, apples, walnuts and grapes) based on maximum residues; freshwater fish for non-bearing citrus and grapes (of those scenarios modeled); and estuarine fish for non-bearing citrus, apples and grapes (of those scenarios modeled); and freshwater invertebrates for non-bearing citrus, apples, grapes and cotton (of those scenarios modeled). . . . Finally, not only are more refined methods to define ecological risks of pesticides being used but also new data, such as that for spray drift, are now available that did not exist in 1989. The RPAs and RPMs in the 1989 opinion may need to be reassessed and modified based on these new approaches. The Agency is currently engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service under section 7(a)(1) of the Endangered Species Act to clarify and develop consistent processes for endangered species risk assessments and consultations. Subsequent to the completion of this process, the Agency will reassess both those species listed since

the completion of the biological opinion and those not considered in the opinion. The Agency will also consider regulatory changes implemented in this RED when the reassessment is undertaken."

1262. In 2008, EPA completed product reregistration for oxyfluorfen, and EPA has issued new approvals for pesticide products since 1989.

1263. The following species have been listed and critical habitat designated since 1989 that may be affected by oxyfluorfen: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1264. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to oxyfluorfen. This information shows that oxyfluorfen may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by oxyfluorfen. For example, there exist

new analyses, as well as new data, such as that for spray drift, as well as new uses and new toxicity information.

1265. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects oxyfluorfen that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the oxyfluorfen registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, the EPA has been "engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service."

1266. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by oxyfluorfen. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by oxyfluorfen. The list of species that may be affected oxyfluorfen is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1267. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by oxyfluorfen.

1268. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by oxyfluorfen. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by oxyfluorfen in the future.

1269. EPA's failure to ensure that oxyfluorfen does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on oxyfluorfen may impair recovery of species impacted by oxyfluorfen, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on oxyfluorfen

is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by oxydemeton-methyl are preserved and remain free from injury.

1270. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, oxyfluorfen could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1271. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which oxyfluorfen affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on oxyfluorfen with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of oxyfluorfen.

1272. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to oxyfluorfen do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1273. Reinitiation of consultation regarding oxyfluorfen is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding oxyfluorfen did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Paraquat dichloride[89] (1989 BiOp)

1274. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over paraquat dichloride, and EPA has discretion to influence or change paraquat dichloride use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1275. EPA's 1997 paraquat dichloride RED found that "[l]evels of Concern have been exceeded for endangered species of birds. . . . When the Endangered Species Protection Program becomes final, limitations in the use of paraquat dichloride may be required to protect endangered and threatened species, but these limitations have not been defined and may be formulation specific. The Agency anticipates that a consultation with the Fish and Wildlife Service may be conducted in accordance with the species-based priority approach described in the Program. After completion of consultation, registrants will be informed if any required label modifications are necessary. Such modifications would most likely consist of the generic label statement referring pesticide users to use limitations contained in county Bulletins."

1276. Paraquat dichloride is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: crustaceans, mammals, fish, amphibians, and mollusks. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1277. On November 21, 2006, EPA completed product reregistration for paraquat dichloride, and EPA has issued new approvals for pesticide products since 1989.

1278. The following species have been listed and critical habitat designated since 1989 that may be affected by paraquat dichloride: Arroyo toad (listed 1994, critical habitat 2011); California tiger

[89] The current EPA Case Number and EPA PC Code for paraquat dichloride are 0262, 061601.

salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe

(listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1279. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to paraquat dichloride. This information shows that paraquat dichloride may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by paraquat dichloride. For example, new toxicity information exists.

1280. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of paraquat dichloride that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the paraquat dichloride registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding paraquat dichloride.

1281. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by paraquat dichloride. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by paraquat dichloride. The list of species that may be affected by paraquat dichloride is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1282. For example, the wood stork was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by paraquat dichloride.

1283. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted

by paraquat dichloride. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by paraquat dichloride in the future.

1284. EPA's failure to ensure that paraquat dichloride does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on paraquat dichloride may impair recovery of species impacted by paraquat dichloride, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on paraquat dichloride is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by paraquat dichloride are preserved and remain free from injury.

1285. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, paraquat dichloride could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1286. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which paraquat dichloride affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on paraquat dichloride with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of paraquat dichloride.

1287. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to paraquat dichloride do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the

ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1288. Reinitiation of consultation regarding paraquat dichloride is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding paraquat dichloride did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Pendimethalin[90] (1989 BiOp)

1289. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over pendimethalin, and EPA has discretion to influence or change pendimethalin use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1290. EPA's 1997 RED explains: "The use of pendimethalin may adversely effect endangered species of terrestrial and semi-aquatic plants, aquatic plants and invertebrates including mollusks, fish, and birds (specifically grazers). When the Endangered Species Protection Program becomes final, limitations in the use of pendimethalin may be required to protect endangered and threatened species, but these limitations have not been defined and may be formulation specific. EPA anticipates that a consultation with the Fish and Wildlife Service may be conducted in accordance with the species-based priority approach described in the Program. After completion of consultation, registrants will be informed if any required label modifications are necessary. Such modifications would most likely consist of the generic label statement referring pesticide users to use limitations contained in county Bulletins."

1291. Pendimethalin is now a known endocrine disrupter. Endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

[90] The current EPA Case Number and EPA PC Code for pendimethalin are 0187, 108501.

1292. Pendimethalin is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1293. In 2007, EPA completed product reregistration for pendimethalin and EPA has issued new approvals for pesticide products since 1989.

1294. In 2009, EPA found that pendimethalin is "likelt to adversely affect" the California red-legged frog.

1295. The following species have been listed and critical habitat designated since 1989 that may be affected by pendimethalin: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian

combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1296. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to pendimethalin. This information shows that pendimethalin may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by pendimethalin. For example, new toxicity information now exists as well as new uses.

1297. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of pendimethalin that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the pendimethalin registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding pendimethalin.

1298. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by pendimethalin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by pendimethalin. The list of species that may be affected by pendimethalin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1299. For example, the littlewing pearlymussel was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by pendimethalin.

1300. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by pendimethalin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by pendimethalin in the future.

1301. EPA's failure to ensure that pendimethalin does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on pendimethalin may impair recovery of species impacted by pendimethalin, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on pendimethalin is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by pendimethalin are preserved and remain free from injury.

1302. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, pendimethalin could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1303. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which pendimethalin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on pendimethalin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of pendimethalin.

1304. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to pendimethalin do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1305. Reinitiation of consultation regarding pendimethalin is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding pendimethalin did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Permethrin[91] (1989 BiOp)

1306. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over permethrin, and EPA has discretion to influence or change permethrin use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1307. EPA's 2007 permethrin RED states: "The acute endangered LOC (RQ >0.05) for direct effects were exceeded for all maximum application rates for corn, sweet corn, potatoes, alfalfa, orchards, tomatoes, and mosquito abatement modeled scenarios. Estimated concentrations in surface water due to waste water containing permethrin were also used to calculate RQ values and show acute endangered species LOC exceedance. Potential chronic exposure for fish was limited to the corn modeled scenario.(In the ecological risk assessment for permethrin, freshwater fish toxicity data are used as surrogates for aquatic-phase amphibians). Freshwater Invertebrates- The acute and chronic LOC was exceeded for the maximum application rate for all crops relative to aquatic macroinvertebrate

[91] The current EPA Case Number and EPA PC Code for permethrin are 2510, 109701.

exposure. Permethrin is expected to reach surface water concentrations high enough to exceed the acute endangered LOC (acute RQ > 0.05) for aquatic invertebrates. Estuarine/Marine Fish- The acute endangered LOC (acute RQ >0.05) is exceed for all maximum application rates. The Agency also calculated estimated concentrations of permethrin in surface water due to waste water and noted the potential for acute endangered species exceedances. However, maximum application rates only showed that the potential for chronic exposure to fish was limited to the corn modeled scenario. Estuarine/Marine Invertebrates- The endangered species acute LOC and chronic LOC is exceeded for all modeled use sites and maximum label rates. However, currently there are no listed estuarine/marine invertebrates. Although a hazard assessment shows that permethrin exposure can result in acute toxicity to honey bees and is considered to be highly toxic on both a contact and an oral basis (contact LD50 = 0.13 ug/bee; oral LD50 = 0.024 ug/bee), an assessment method for estimating the risk to bees is not yet available; therefore, we cannot preclude the possibility of potential effects to listed insect species. . . . Finally, the agency cannot preclude the potential for indirect effects to listed species that may be dependent upon taxa that experience direct effects from the use of permethrin. . . . At this time, the Agency is not requiring label changes specific to the protection of listed species. If, in the future, specific measures are necessary for the protection of listed species, the Agency will implement them through the Endangered Species Protection Program."

1308. Permethrin has been detected by the USGS in over a dozen watersheds where susceptible species exist as well (see Exhibit B).

1309. The following species have been listed and critical habitat designated since 1989 that may be affected by permethrin: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed

1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Salt Creek tiger beetle (listed 2005, critical habitat 2010); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991).

1310. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to permethrin. This information shows that permethrin may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by permethrin. For example, there now exists new toxicity information as well as information regarding presence in U.S. waters.

1311. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of permethrin that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the permethrin registration in a manner that causes an effect to the listed species or critical habitat that was

not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding permethrin.

1312. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by permethrin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by permethrin. The list of species that may be affected by permethrin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1313. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by permethrin.

1314. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by permethrin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by permethrin in the future.

1315. EPA's failure to ensure that permethrin does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on permethrin may impair recovery of species impacted by carbaryl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on permethrin is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by permethrin are preserved and remain free from injury.

1316. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, permethrin could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1317. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which permethrin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on permethrin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of permethrin.

1318. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to permethrin do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1319. Reinitiation of consultation regarding permethrin is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding permethrin did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Phorate[92] (1989 BiOp)

1320. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over phorate, and EPA has discretion to influence or change phorate use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

[92] The current EPA Case Number and EPA PC Code for phorate are 0103, 057201.

1321. EPA's 2006 RED phorate states: "Phorate is highly toxic to birds and small mammals when applied at label rates. The RQ values for terrestrial animals exceed the acute risk level of concern for all species, crops, and application rates. Endangered species levels of concern are exceeded for birds and small mammals from the use of a single application rate. The greatest exceedances were calculated for small mammals. Risk quotient values suggest that songbirds are the birds most at risk. The RQ value ranged from two to three orders of magnitude greater than the level of concern for all uses and all application methods. The Agency has also identified both acute and chronic concerns for birds and small mammalian endangered species resulting from the use of phorate. The Agency has also identified a concern for aquatic endangered species, on an acute and chronic basis from the use of phorate."

1322. Phorate is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1323. The USGS has detected phorate in over a dozen watersheds where susceptible species exist as well (see Exhibit B).

1324. On April 30, 2008, EPA completed product reregistration for phorate and EPA has issued new approvals for pesticide products since 1989.

1325. The following species have been listed and critical habitat designated since 1989 that may be affected by phorate: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009);

Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Salt Creek tiger beetle (listed 2005, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1326. The above information reveals that triggers for reinitiation of consultation have occurred in regard to phorate. This information shows that phorate may affect listed species or their critical

habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by phorate. For example, there exists new information regarding toxicity and presence in U.S. waters.

1327. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of phorate that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the phorate registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding phorate.

1328. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by phorate. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by phorate. The list of species that may be affected by phorate is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1329. For example, the wood stork was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by phorate.

1330. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by phorate. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by phorate in the future.

1331. EPA's failure to ensure that phorate does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on phorate may impair recovery of species impacted by carbaryl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on phorate is necessary

to ensure that Plaintiffs' members' interests in the species that may be affected by phorate are preserved and remain free from injury.

1332. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, phorate could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1333. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which phorate affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on phorate with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of phorate.

1334. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to phorate do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1335. Reinitiation of consultation regarding phorate is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding phorate did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Phosmet[93] (1989 BiOp)

1336. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over phosmet, and EPA has discretion to influence or change phosmet use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1337. EPA's 2006 phosmet RED finds: "Studies suggest that on certain crops, where there is a high application rate and frequent application of phosmet, expected environmental concentrations can lead to acute risk for mammals; chronic risk for birds and mammals; and acute and chronic risks to invertebrates. In addition, phosmet is highly toxic to honey bees."

1338. Phosmet is a pesticide now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, fish, amphibians, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1339. On February 15, 2012, EPA completed product reregistration for phosmet and EPA has issued new approvals for pesticide products since 1989.

1340. The following species have been listed and critical habitat designated since 1989 that may be affected by phosmet: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern

[93] The current EPA Case Number and EPA PC Code for phosmet are 0242, 059201.

spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Mitchell's satyr butterfly (listed 1991); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Riparian brush rabbit (listed 2000);; Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1341. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to phosmet. This information shows that phosmet may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been

listed or critical habitat designated that may be affected by phosmet. For example, there now exists new toxicity information.

1342. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of phosmet that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the phosmet registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding phosmet.

1343. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by phosmet. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by phosmet. The list of species that may be affected by phosmet is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1344. For example, the wood stork was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by phosmet.

1345. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by phosmet. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by phosmet in the future.

1346. EPA's failure to ensure that phosmet does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on phosmet may impair recovery of species impacted by carbaryl, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on phosmet is necessary

to ensure that Plaintiffs' members' interests in the species that may be affected by phosmet are preserved and remain free from injury.

1347. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, phosmet could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1348. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which phosmet affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on phosmet with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of phorate.

1349. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to phosmet do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1350. Reinitiation of consultation regarding phosmet is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding phosmet did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Profenofos[94] (1989 BiOp)

1351. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over profenofos, and EPA has discretion to influence or change profenofos use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1352. EPA's 2006 profenofos RED determined that "profenofos is highly toxic to bees, birds, and small mammals based on test results. The RQ values ranged from 0.53-0.76 for terrestrial animals (exceeding the acute risk level of concern of 0.5 or greater). Endangered species levels of concern are exceeded for birds and small mammals from the use of a single application at the maximum rate."

1353. Profenofos is a pesticide now known to ne "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1354. In 2006, EPA completed product reregistration for profenofos and EPA has issued new approvals for pesticide products since 1989.

1355. The following species have been listed and critical habitat designated since 1989 that may be affected by profenofos: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods

[94] The current EPA Case Number and EPA PC Code for profenofos are 2540, 111401.

salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1356. The above information reveals that triggers for reinitiation of consultation have occurred in regard to profenofos. This information shows that profenofos may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been

listed or critical habitat designated that may be affected by profenofos. For example, there now exists new toxicity information.

1357. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of profenofos that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the profenofos registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding profenofos.

1358. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by profenofos. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by profenofos. The list of species that may be affected by profenofos is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1359. For example, the bonytail chub was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by profenofos.

1360. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by profenofos. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by profenofos in the future.

1361. EPA's failure to ensure that profenofos does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on profenofos may impair recovery of species impacted by profenofos, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on profenofos

is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by profenofos are preserved and remain free from injury.

1362. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, profenofos could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1363. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which profenofos affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on profenofos with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of profenofos.

1364. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to profenofos do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1365. Reinitiation of consultation regarding profenofos is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding profenofos did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Propargite[95] (1989 BiOp)

1366. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over propargite, and EPA has discretion to influence or change propargite use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1367. EPA's 2008 propargite RED determined that "[a]t currently proposed rates, endangered species risk presumption levels are exceeded for both freshwater and estuarine/marine fish and invertebrates at the label permitted application scenarios for propargite. . . . Mammalian and avian acute risk for endangered species is exceeded for certain species which may feed heavily on vegetation or insects. Chronic risk concern levels for listed birds and mammals are indicated for many uses. The Agency consulted with the US Fish and Wildlife Service (FWS or the Service) on the corn use of propargite as part of the corn cluster analysis in 1983 and on several agricultural uses of propargite in the "reinitiation" of the cluster assessments in 1988. The resulting Opinions found jeopardy to one amphibian species, eight fish species and one invertebrate species. The Service proposed Reasonable and Prudent Alternatives (RPAs) to avoid the likelihood of jeopardizing the continued existence of these species. In addition, the Service had Reasonable and Prudent Measures (RPMs) to reduce incidental take of 22 fish and one aquatic invertebrate species. These consultations and the findings expressed in the Opinions, however, are based on old labels and application methods, less refined risk assessment procedures, and an older approach to consultation which is currently being revised through interagency collaboration. EPA's current assessment of ecological risks uses both more refined methods to define ecological risks of pesticides and new data, such as that for spray drift. Therefore, the Reasonable and Prudent Measures (RPMs) in the Biological Opinion(s) may need to be reassessed and modified based on these new approaches. The Agency is currently engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service under section 7(a)(1) of the

[95] The current EPA Case Number and EPA PC Code for propargite are 0243, 097601.

Endangered Species Act. The objective of this review is to clarify and develop consistent processes for endangered species risk assessments and consultations. Subsequent to the completion of this process, the Agency will reassess the potential effects of propargite use to federally listed threatened and endangered species. At that time, the Agency will also consider any regulatory changes recommended in the RED that are being implemented. Until such time as this analysis is completed, the overall environmental effects mitigation strategy articulated in this document and any County Specific Pamphlets described below which address propargite, will serve as interim protection measures to reduce the likelihood that endangered and threatened species may be exposed to propargite at levels of concern."

1368. Propargite is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of propargite are likely to exceed the LOCs for the following taxonomic groups: mammals, birds, fish, amphibians, mollusks, crustaceans, and reptiles.

1369. Propargite is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1370. The USGS has detected propargite in over a dozen U.S. watersheds where susceptible species exist as well, as documented in Exhibit B.

1371. On May 15, 2008, EPA completed product reregistration for propargite, and EPA has issued new approvals for pesticide products since 1989.

1372. The following species have been listed and critical habitat designated since 1989 that may be affected by propargite: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical

habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1373. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to propargite. This information shows that profenofos may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by propargite. For example, there now exists new uses, new labels and application methods, new assessment procedures, and a newer approach to consultation.

1374. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of propargite that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the propargite registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, the EPA "is currently engaged in a Proactive Conservation Review with FWS and the National Marine Fisheries Service."

1375. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by propargite. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by propargite. The list of species that may be affected by propargite is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1376. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by propargite.

1377. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by propargite. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by propargite in the future.

1378. EPA's failure to ensure that propargite does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on propargite may impair recovery of species impacted by propargite, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on propargite is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by profenofos are preserved and remain free from injury.

1379. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, propargite could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1380. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which propargite affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on propargite with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of propargite.

1381. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to propargite do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1382. Reinitiation of consultation regarding propargite is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding propargite did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Simazine[96] (1989 BiOp)

1383. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over simazine, and EPA has discretion to influence or change simazine use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may

[96] The current EPA Case Number and EPA PC Code for simazine are 0070, 080807.

only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1384. EPA's 2006 simazine RED states that EPA's "preliminary assessment indicates that the LOC for Listed Species is exceeded for the following combination of taxonomic groups and uses: Freshwater fish – granular application for nonselective weed control on turf and other non-crop land; Freshwater invertebrates – non-granular application on citrus, pine trees, nuts, peaches, and corn; granular application for nonselective weed control on turf and other non-crop land as well as apples; Vascular aquatic plants – non-granular application on citrus, nuts, peaches, and corn; granular application for nonselective weed control on turf and other non-crop land as well as apples; Birds – non-granular application for all uses; Mammals – non-granular and granular application for all use. . . . Based on acute and chronic RQs, there are additional potential indirect effects to Listed Species that have the following behaviors: Eat fish or amphibians (e.g., fish, mammals, birds, reptiles), or in the case of freshwater mussels, use a fish as a necessary host in their life cycle; Rely on freshwater invertebrates (e.g., daphnids) as a primarily food source; rely on aquatic plants for food and/or habitat and shelter; Eat birds or require birds as pollinators or seed dispersers; Eat mammals or require mammals as pollinators or seed dispersers; and rely either on a specific plant species (plant species obligate) or multiple plant species (plant dependent) for some important aspect of their life cycle."

1385. Simazine is mow known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish and amphibians. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1386. The USGS has detected simazine in over 100 watersheds where susceptible species exist as well (see Exhibit B), and it was one of the most widely detected pesticides in USGS' 2007 Report.

1387. The following species have been listed and critical habitat designated since 1989 that may be affected by simazine: Arroyo toad (listed 1994, critical habitat 2011); California tiger

salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004);Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1388. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to simazine. This information shows that simazine may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by simazine. There now exists new information regarding presence in U.S. waters, new information regarding the extent of impacts, and new information regarding toxicity.

1389. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of simazine that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the simazine registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding simazine.

1390. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by simazine. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by simazine. The list of species that may be affected by simazine is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1391. For example, the Cape Fear shiner was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by simazine.

1392. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by simazine. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by simazine in the future.

1393. EPA's failure to ensure that simazine does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on simazine may impair recovery of species impacted by simazine, or may make it more

likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on simazine is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by simazine are preserved and remain free from injury.

1394. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, simazine could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1395. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which simazine affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on simazine with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of simazine.

1396. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to simazine do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1397. Reinitiation of consultation regarding simazine is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding simazine did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

S,S,S-Tributyl Phosphorotrithioate[97] (1989 BiOp)

1398. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over S,S,S-tributyl phosphorotrithioate (tribufos), and EPA has discretion to influence or change S,S,S-tributyl phosphorotrithioate (tribufos)use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1399. EPA's 2006 RED explains that "the Agency is concerned with … risks to endangered bird species, which may be acutely affected. . . . [and] the Agency is concerned with acute high risks to herbivores and insectivores."

1400. S,S,S-tributyl phosphorotrithioate is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, crustaceans, and insects. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1401. On July 12, 2006, EPA completed product reregistration for S,S,S-tributyl phosphorotrithioate and EPA has issued new approvals for pesticide products since 1989.

1402. The following species have been listed and critical habitat designated since 1989 that may be affected by S,S,S-tributyl phosphorotrithioate: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical

[97] The current EPA Case Number and EPA PC Code for S,S,S-tributyl phosphorotrithioate (tribufos) are 2145, 074801.

habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); American burying beetle (listed 1989); Behren's fritillary (listed 1997) (Behren's silverspot); Callippe silverspot (listed 1997); Myrtle's silverspot (listed 1992); Ohlone tiger beetle (listed 2001); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1403. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to S,S,S-tributyl phosphorotrithioate. This information shows that S,S,S-tributyl phosphorotrithioate may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by S,S,S-tributyl phosphorotrithioate. For example, there now exists new toxicity information.

1404. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of S,S,S-tributyl phosphorotrithioate that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the S,S,S-tributyl phosphorotrithioate registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding S,S,S-tributyl phosphorotrithioate.

1405. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by S,S,S-tributyl phosphorotrithioate. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by S,S,S-tributyl phosphorotrithioate. The list of species that may be affected by S,S,S-tributyl phosphorotrithioate is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1406. For example, Judge Tait's mussel was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by S,S,S-tributyl phosphorotrithioate.

1407. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by S,S,S-tributyl phosphorotrithioate. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by S,S,S-tributyl phosphorotrithioate in the future.

1408. EPA's failure to ensure that S,S,S-tributyl phosphorotrithioate does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For

example, EPA's failure to reinitiate consultation on simazine may impair recovery of species impacted by S,S,S-tributyl phosphorotrithioate, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on S,S,S-tributyl phosphorotrithioate is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by S,S,S-tributyl phosphorotrithioate are preserved and remain free from injury.

1409. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, S,S,S-tributyl phosphorotrithioate could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1410. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which S,S,S-tributyl phosphorotrithioate affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on S,S,S-tributyl phosphorotrithioate with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of S,S,S-tributyl phosphorotrithioate.

1411. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to S,S,S-tributyl phosphorotrithioate do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1412. Reinitiation of consultation regarding S,S,S-tributyl phosphorotrithioate is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding S,S,S-tributyl phosphorotrithioate did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Terbufos[98] (1989 BiOp)

1413. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over terbufos, and EPA has discretion to influence or change terbufos use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1414. The 2006 terbufos RED notes that EPA "initiated three consultations with the Fish and Wildlife Service (FWS) on the potential effects of terbufos corn use on endangered and threatened species. To date, the FWS has issued two Biological Opinions. In these Opinions, the FWS found jeopardy for 13 fish species, 25 aquatic invertebrate species, and 4 insect species. An additional 15 fish species and 2 aquatic invertebrate species were expected to be affected, but not jeopardized. The FWS also found jeopardy for one avian species due to the potential effects of reducing its aquatic food source. These consultations and the findings expressed in the Opinions, however, are based on old labels and application methods, less refined risk assessment procedures, and an older approach to consultation which is currently being revised through interagency collaboration."

1415. Terbufos is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of terbufos are likely to exceed the LOCs for the following taxonomic groups: birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles.

[98] The current EPA Case Number and EPA PC Code for terbufos are 0109, 105001.

1416. Terbufos is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1417. The USGS has detected terbufos in over a dozen U.S. watersheds where susceptible species exist as well, as documented in Exhibit B.

1418. In 2006, EPA completed product reregistration for terbufos and EPA has issued new approvals for pesticide products since 1989.

1419. The following species have been listed and critical habitat designated since 1989 that may be affected by terbufos: Frosted flatwoods salamander (listed 1999, critical habitat 2009); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); Razorback sucker (listed 1991, critical habitat 1994); Topeka shiner (listed 1998, critical habitat 2004); American burying beetle (listed 1989); Mitchell's satyr butterfly (listed 1991); Salt Creek tiger beetle (listed 2005, critical habitat 2010); Florida salt marsh vole (listed 1991); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993,

critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997).

1420. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to terbufos. This information shows that terbufos may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by terbufos. For example, there now exists new toxicity information, new labels and application methods, and new assessment procedures.

1421. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of terbufos that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the terbufos registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding terbufos.

1422. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by terbufos. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by terbufos. The list of species that may be affected by terbufos is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1423. For example, the rough pigtoe was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by terbufos.

1424. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by terbufos. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by terbufos in the future.

1425. EPA's failure to ensure that terbufos does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on terbufos may impair recovery of species impacted by terbufos, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on terbufos is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by terbufos are preserved and remain free from injury.

1426. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, terbufos could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1427. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which terbufos affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on terbufos with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of terbufos.

1428. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to terbufos do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1429. Reinitiation of consultation regarding terbufos is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding terbufos did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Thiophanate-methyl[99] (1989 BiOp)

1430. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over thiophanate-methyl, and EPA has discretion to influence or change thiophanate-methyl use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1431. EPA's 2005 thiophanate-methyl RED found that "TM/MBC is expected to pose a chronic risk to endangered birds, mammals, aquatic animals, and aquatic plants under most of the registered use scenarios."

1432. Thiophanate-methyl is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, fish, and amphibians. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1433. On July 27, 2009, EPA completed product reregistration for thiophanate-methyl and EPA has issued new approvals for pesticide products since 1989.

1434. The following species have been listed and critical habitat designated since 1989 that may be affected by thiophanate-methyl: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical

[99] The current EPA Case Number and EPA PC Code for thiophanate-methyl are 2680, 102001.

habitat 2009); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Alabama moccasinshell (listed 1993, critical habitat 2004); Appalachian Elktoe (listed 1994, critical habitat 2002); Chipola slabshell (listed 1998, critical habitat 2007); Clubshell (listed 1993); Coosa moccasinshell (listed 1993, critical habitat 2004); Cumberlandian combshell (listed 1997, critical habitat 2004); Dwarf wedgemussel (listed 1990); Fat threeridge (listed 1998, critical habitat 2007); Finelined pocketbook (listed 1993, critical habitat 2004); Gulf moccasinshell (listed 1998, critical habitat 2007); Northern riffleshell (listed 1993); Ochlockonee moccasinshell (listed 1998, critical habitat 2007); Oval pigtoe (listed 1998, critical habitat 2007); Oyster mussel (listed 1997, critical habitat 2004); Purple bankclimber (listed 1998, critical habitat 2007); Purple bean (listed 1997, critical habitat 2004); Shinyrayed pocketbook (listed 1998, critical habitat 2007); Southern clubshell (listed 1993, critical habitat 2004); Southern pigtoe (listed 1993, critical habitat 2004); Triangular kidneyshell (listed 1993, critical habitat 2004); Upland combshell (listed 1993, critical habitat 2004); Winged mapleleaf (listed 1991); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1435. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to thiophanate-methyl. This information shows that thiophanate-methyl may affect

listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by thiophanate-methyl. For example, there exists new toxicity information.

1436. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of thiophanate-methyl that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the thiophanate-methyl registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding thiophanate-methyl.

1437. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by thiophanate-methyl. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by thiophanate-methyl. The list of species that may be affected by thiophanate-methyl is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1438. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by thiophanate-methyl.

1439. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by thiophanate-methyl. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by thiophanate-methyl in the future.

1440. EPA's failure to ensure that thiophanate-methyl does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on thiophanate-methyl may impair recovery of species impacted by thiophanate-methyl, or may make it more likely that these species would suffer population declines. Species

declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on thiophanate-methyl is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by terbufos are preserved and remain free from injury.

1441. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, thiophanate-methyl could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1442. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which thiophanate-methyl affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on thiophanate-methyl with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of thiophanate-methyl.

1443. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to thiophanate-methyl do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1444. Reinitiation of consultation regarding thiophanate-methyl is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding thiophanate-methyl did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Trichlorfon[100] (1989 BiOp)

1445. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over trichlorfon, and EPA has discretion to influence or change trichlorfon use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1446. The EPA's 2006 trichlorfon RED found that "Terrestrial: acute and chronic LOCs are exceeded for non-endangered species (birds and mammals), and therefore are also exceeded for endangered species. Aquatic: Acute LOCs are exceeded for non-endangered species (freshwater, estuarine, and marine fish and invertebrates), and therefore are also exceeded for endangered species. By the same reasoning, chronic levels of concern are exceeded for aquatic invertebrates (freshwater, marine, and estuarine)."

1447. Trichlorfon is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: birds, fish, amphibians, mollusks, crustaceans, insects, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1448. In 2006, EPA completed product reregistration for trichlorfon and EPA has issued new approvals for pesticide products since 1989.

1449. The following species have been listed and critical habitat designated since 1989 that may be affected by trichlorfon: Chiricahua leopard frog (listed 2002, critical habitat 2012); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Bonytail chub (critical habitat 1994); Razorback sucker (listed 1991, critical habitat 1994); Desert tortoise (critical habitat 1994).

[100] The current EPA Case Number and EPA PC Code for trichlorfon are 0104, 057901.

1450. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to trichlorfon. This information shows that trichlorfon may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by trichlorfon. For example, there now exists new toxicity information.

1451. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of trichlorfon that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the trichlorfon registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding trichlorfon.

1452. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by trichlorfon. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by trichlorfon. The list of species that may be affected by trichlorfon is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1453. For example, the desert pupfish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by trichlorfon.

1454. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by trichlorfon. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by trichlorfon in the future.

1455. EPA's failure to ensure that trichlorfon does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on trichlorfon may impair recovery of species impacted by trichlorfon, or may make it more likely that these species would suffer population declines. Species declines and impaired

recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on trichlorfon is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by trichlorfon are preserved and remain free from injury.

1456. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, trichlorfon could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1457. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which trichlorfon affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on thiophanate-methyl with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of trichlorfon.

1458. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to trichlorfon do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1459. Reinitiation of consultation regarding trichlorfon is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding trichlorfon did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Trifluralin[101] (1989 BiOp)

1460. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over trifluralin, and EPA has discretion to influence or change trifluralin use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1461. EPA's 1996 trifluralin RED notes that "the endangered species LOCs have been exceeded for birds, mammals, and semi-aquatic plants. Although the LOCs have not been exceeded for endangered freshwater and marine or estuarine fish, these species may be adversely affected based on laboratory and field studies which revealed vertebral dysplasia after exposure to very low levels of trifluralin."

1462. Trifluralin is a known endocrine disrupter. As explained above, endocrine disrupters have effects on the reproductive and immune systems capable of compromising populations of endangered species.

1463. Trifluralin is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: fish, amphibians, and crustaceans. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1464. The USGS has detected trifluralin in dozens of waterways across the nation where susceptible species exist as well, as documented in Exhibit B.

1465. In 2006, EPA completed product reregistration for trifluralin and EPA has issued new approvals for pesticide products since 1989.

1466. The following species have been listed and critical habitat designated since 1989 that may be affected by trifluralin: Arroyo toad (listed 1994, critical habitat 2011); California tiger

[101] The current EPA Case Number and EPA PC Code for trifluralin are 0179, 036101.

salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Conservancy fairy shrimp (listed 1993, critical habitat 2005); Alabama sturgeon (listed 2000, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Florida salt marsh vole (listed 1991); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (listed 1992, critical habitat 2009); Lower keys rabbit (listed 1990); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1467. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to trifluralin. This information shows that trifluralin may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by trifluralin. For example, thre now exists new toxicity information.

1468. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of trifluralin that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the trifluralin registration in a manner that causes an effect to the listed species or critical habitat that was

not considered in the biological opinion. The EPA has been conducting its Endangered Species Program for many years and very likely has significant information regarding trifluralin.

1469. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by trifluralin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by trifluralin. The list of species that may be affected by trifluralin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1470. For example, the Alabama cavefish was part of the 1989 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by trifluralin.

1471. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by trifluralin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by trifluralin in the future.

1472. EPA's failure to ensure that trichlorfon does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on trifluralin may impair recovery of species impacted by trichlorfon, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on trifluralin is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by trifluralin are preserved and remain free from injury.

1473. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, trifluralin could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1474. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which trifluralin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on trifluralin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of trifluralin.

1475. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to trifluralin do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1476. Reinitiation of consultation regarding trifluralin is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding trifluralin did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Warfarin[102] (1993 BiOp)

1477. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over warfarin, and EPA has discretion to influence or change warfarin use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

[102] The current EPA Case Number and EPA PC Code for warfarin are 0011, 086002.

1478. EPA's 2008 rodenticide Risk Mitigation Decision found that "In March 2005, EPA initiated informal consultation for the nine rodenticides registered at that time. Several reported incidents have involved Federally listed threatened and endangered species, for example the San Joaquin kit fox and Northern spotted owl, in addition to the Bald eagle, which is protected under the Bald and Golden Eagle Act. The FWS issued a biological opinion on eight of the rodenticides in 1993. The jeopardy determinations for the individual compounds primarily recommend prohibiting use in habitat occupied by listed species and requiring tamper-resistant bait stations for outdoor placements for some uses. . . . Since rodenticide use is widespread and secondary exposure issues with these compounds are complex and may include listed species that migrate, the Federally- defined action area may be extensive. Through informal consultation, EPA and FWS are working together to determine an appropriate plan of action for the rodenticides. Meanwhile, the mitigation measures set forth in this document should have the beneficial effect of reducing non-target wildlife exposures to rodenticides, and thus refining the scope of the endangered species risk assessment work remaining to be completed, particularly for the second-generation anticoagulants. EPA's comparative ecological risk assessment concludes that each of the rodenticide active ingredients poses significant risks to non-target wildlife when applied as grain-based bait products. The risks to wildlife are from primary exposure (direct consumption of rodenticide bait) for all compounds and secondary exposure (consumption of prey by predators or scavengers with rodenticide stored in body tissues) from the anticoagulants."

1479. Warfarin is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of trifluralin are likely to exceed to LOCs for the following taxonomic groups: mammals, birds, and reptiles.

1480. Warfarin is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, fish, amphibians, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1481. The following species have been listed and critical habitat designated since 1991 that may be affected by warfarin: Arroyo toad (listed 1994, critical habitat 2011); California tiger salamander (Central California DPS, except for Bay Area Counties) (listed 2004, critical habitat 2005); California tiger salamander (Santa Barbara County DPS) (listed 2000, critical habitat 2004); Chiricahua leopard frog (listed 2002, critical habitat 2012); Frosted flatwoods salamander (listed 1999, critical habitat 2009); Mississippi gopher frog (DPS) (listed 2001, critical habitat 2012); Mountain yellow-legged frog (Southern California DPS) (listed 2002, critical habitat 2006); Reticulated flatwoods salamander (listed 2009, critical habitat 2009); Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Alabama sturgeon (listed 2000, critical habitat 2009); Atlantic salmon (Gulf of Maine DPS) (listed 2009, critical habitat 2009); Blue shiner (listed 1992); Bonytail chub (critical habitat 1994); Bull trout (U.S. DPS) (listed 1998, critical habitat 2010); Gulf sturgeon (listed 1991, critical habitat 2003); North American green sturgeon (southern DPS) (listed 2006, critical habitat 2009); Razorback sucker (listed 1991, critical habitat 1994); Santa Ana sucker (listed 2000, critical habitat 2010); Topeka shiner (listed 1998, critical habitat 2004); Vermilion darter (listed 2001, critical habitat 2010); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (critical habitat 2009); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1482. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to warfarin. This information shows that trifluralin may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by warfarin. For example, new toxicity information, new uses, as well as new information regarding exposure and extent of use, exist.

1483. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of warfarin that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the warfarin registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has engaged in discussions with the Fish and Wildlife Service, and these discussions may reveal new information.

1484. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by warfarin. Plaintiffs' members derive professional, aesthetic, spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by warfarin. The list of species that may be affected by warfarin is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1485. For example, the Florida salt marsh vole was part of the 1993 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by warfarin.

1486. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by warfarin. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by warfarin in the future.

1487. EPA's failure to ensure that warfarin does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on warfarin may impair recovery of species impacted by warfarin, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on warfarin is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by warfarin are preserved and remain free from injury.

1488. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, warfarin could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1489. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which warfarin affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs' members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on warfarin with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of warfarin.

1490. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to warfarin do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1491. Reinitiation of consultation regarding warfarin is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding warfarin did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

Zinc phosphide[103] (1993 BiOp)

1492. EPA retains, and statutes and regulations authorize, ongoing discretionary involvement and control over zinc phosphide, and EPA has discretion to influence or change zinc phosphide use for the benefit of protected species. *See Wash. Toxics Coalition v. EPA*, 413 F.3d at 1033. For example,

[103] The current EPA Case Number and EPA PC Code for zinc phosphide are 0026, 088601.

EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment, 7 U.S.C. § 136a(c)(5), and EPA may change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular pesticide uses at any time. 7 U.S.C. § 136d(c); *see also* 40 CFR Part 154 (Special Review Procedures).

1493. EPA's 2008 rodenticide Risk Mitigation Decision found that "[i]n March 2005, EPA initiated informal consultation for the nine rodenticides registered at that time. Several reported incidents have involved Federally listed threatened and endangered species, for example the San Joaquin kit fox and Northern spotted owl, in addition to the Bald eagle, which is protected under the Bald and Golden Eagle Act. The FWS issued a biological opinion on eight of the rodenticides in 1993. The jeopardy determinations for the individual compounds primarily recommend prohibiting use in habitat occupied by listed species and requiring tamper-resistant bait stations for outdoor placements for some uses. . . . Since rodenticide use is widespread and secondary exposure issues with these compounds are complex and may include listed species that migrate, the Federally- defined action area may be extensive. Through informal consultation, EPA and FWS are working together to determine an appropriate plan of action for the rodenticides. Meanwhile, the mitigation measures set forth in this document should have the beneficial effect of reducing non-target wildlife exposures to rodenticides, and thus refining the scope of the endangered species risk assessment work remaining to be completed, particularly for the second-generation anticoagulants. EPA's comparative ecological risk assessment concludes that each of the rodenticide active ingredients poses significant risks to non-target wildlife when applied as grain-based bait products. The risks to wildlife are from primary exposure (direct consumption of rodenticide bait) for all compounds and secondary exposure (consumption of prey by predators or scavengers with rodenticide stored in body tissues) from the anticoagulants."

1494. Zinc phosphide is a pesticide for which the EPA has indicated that estimated environmental concentrations (EECs) are likely to exceed the Levels of Concern (LOCs) for endangered species, and/or may cause indirect effects on endangered species by altering habitat or food sources. Specifically, EECs of trifluralin are likely to exceed to LOCs for the following taxonomic groups: mammals, birds, and reptiles.

1495. Zinc phosphide is now known to be "highly acutely toxic" or "very highly acutely toxic" to the following taxonomic groups: mammals, birds, and reptiles. These toxicity rankings are based on LD50 or LC50 data (lethal dose to 50 percent of the test organisms or lethal concentration for 50 percent of the test organisms) in one or more of three databases that the EPA maintains: AQUIRE, Terretox, and the EPA database of ecotoxicity studies used in registration decisions.

1496. The following species have been listed and critical habitat designated since 1991 that may be affected by zinc phosphide: Coastal California gnatcatcher (listed 1993, critical habitat 2007); Northern spotted owl (listed 1990, critical habitat 2012); Piping plover (critical habitat 2001, 2002, 2008, 2009); Southwestern willow flycatcher (listed 1995, critical habitat 2013); Western snowy plover (Pacific DPS) (listed 1993, critical habitat 2012); Buena Vista Lake ornate Shrew (listed 2002, critical habitat 2005); Killer whale (southern resident DPS) (listed 2006, critical habitat 2006); Louisiana black bear (critical habitat 2009); Preble's meadow jumping mouse (listed 1998, critical habitat 2010); Riparian brush rabbit (listed 2000); Riparian woodrat (=San Joaquin Valley) (listed 2000); Bog turtle (Northern DPS) (listed 1997); Desert tortoise (critical habitat 1994); Giant garter snake (listed 1993).

1497. The above information reveals that triggers for reinitiation of formal consultation have occurred in regard to zinc phosphide. This information shows that zinc phosphide may affect listed species or their critical habitat in a manner or to an extent not previously considered, and that new species have been listed or critical habitat designated that may be affected by zinc phosphide. For example, new toxicity information, new uses, as well as new information regarding exposure and extent of use, exist.

1498. Additional information also likely exists in the possession of the EPA, or the Services, demonstrating either a) new information revealing effects of zinc phosphide that may affect listed species or critical habitat in a manner or to an extent not previously considered, or b) modification of the zinc phosphide registration in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion. For example, EPA has engaged in discussions with the FWS, and these discussions may reveal new information.

1499. Plaintiffs' members live, work, visit, recreate in, and otherwise enjoy areas across the nation that may be impacted by zinc phosphide. Plaintiffs' members derive professional, aesthetic,

spiritual, recreational, economic, and educational benefits from the endangered and threatened species that live in these areas and may be impacted by zinc phosphide. The list of species that may be affected by zinc phosphide is provided in Exhibit A, and Plaintiffs' members have cognizable interests in these species.

1500. For example, the Florida salt marsh vole was part of the 1993 BiOp, and a member of Plaintiffs' organizations has a cognizable interest in this species based on, among other things, efforts to observe the species during frequent visits to habitats where the species can be found and may be affected by zinc phosphide.

1501. Plaintiffs' members engage in wildlife observation, research, photography, restoration activities, and educational programs involving endangered and threatened species that may be impacted by zinc phosphide. Plaintiffs' members will continue to maintain an interest in the species and areas that may be impacted by zinc phosphide in the future.

1502. EPA's failure to ensure that zinc phosphide does not impact endangered species and their habitats harms Plaintiffs' members' interests in those species. For example, EPA's failure to reinitiate consultation on zinc phosphide may impair recovery of species impacted by warfarin, or may make it more likely that these species would suffer population declines. Species declines and impaired recovery harm the interests that Plaintiffs' members have in the existence and conservation of these rare animals, such as limiting the ability to observe the species. Reinitiation of consultation on zinc phosphide is necessary to ensure that Plaintiffs' members' interests in the species that may be affected by zinc phosphide are preserved and remain free from injury.

1503. EPA must register and authorize pesticides before they can be used and has an ongoing responsibility to ensure that registered pesticides do not have unreasonable adverse effects on the environment. Absent EPA's registration and continuing discretionary control and involvement, zinc phosphide could not be used and could not negatively impact the listed species named in Exhibit A and their habitats.

1504. If this Court orders EPA to reinitiate consultation, the Service would analyze the extent to which zinc phosphide affects listed species and their habitats and, if necessary, would suggest reasonable and prudent alternatives or measures to protect the species, which would protect Plaintiffs'

members' interests in the species. 16 U.S.C. § 1536(a)(3). Unless the requested relief is granted, Plaintiffs' interests will continue to be injured by EPA's failure to reinitiate consultation on zinc phosphide with the Service, as well as by the potential ongoing harm to the species named in Exhibit A and their habitats as a result of ongoing use of zinc phosphide.

1505. The injuries described above are actual, concrete injuries that are presently suffered by Plaintiffs and their members and will continue to occur unless relief is granted by this Court. These injuries are directly caused by the Defendants' failure to reinitiate consultation with the Service to ensure that EPA's actions relating to zinc phosphide do not affect listed species and Plaintiffs' members' cognizable interests in these species. The relief sought herein, EPA's compliance with the ESA, would redress Plaintiffs' injuries. Plaintiffs have no other adequate remedy at law, and they bring this action on behalf of their adversely affected members.

1506. Reinitiation of consultation regarding zinc phosphide is reviewable under the ESA's citizen suit provision, 16 U.S.C. § 1540(g). In the alternative, because the triggering events for reinitiation of consultation regarding zinc phosphide did not occur as a result of a FIFRA hearing, they are therefore judicially reviewable by a district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIRST CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On 1,3-dichloropropene)

1507. All allegations set forth above in this Complaint are incorporated herein by reference.

1508. EPA "affirmatively authorized" the use of 1,3-dichloropropene through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of 1,3-

dichloropropene is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1509. EPA has retained discretionary control and involvement over 1,3-dichloropropene through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on 1,3-dichloropropene show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of 1,3-dichloropropene is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1510. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1511. Because EPA's actions involving 1,3-dichloropropene "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1512. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1513. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding 1,3-dichloropropene do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1514. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1515. In the alternative, EPA's registration of products containing 1,3-dichloropropene are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SECOND CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On 2,4-D, salts and esters)

1516. All allegations set forth above in this Complaint are incorporated herein by reference.

1517. EPA "affirmatively authorized" the use of 2,4-D, salts and esters through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of 2,4-D, salts and esters is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1518. EPA has retained discretionary control and involvement over 2,4-D, salts and esters through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on 2,4-D, salts and esters show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of 2,4-D, salts and esters is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1519. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1520. Because EPA's actions involving 2,4-D, salts and esters "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1521. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1522. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding 2,4-D, salts and esters do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1523. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1524. In the alternative, EPA's registration of products containing 2,4-D, salts and esters are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRD CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Acephate)

1525. All allegations set forth above in this Complaint are incorporated herein by reference.

1526. EPA "affirmatively authorized" the use of acephate through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of acephate is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1527. EPA has retained discretionary control and involvement over acephate through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on acephate show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary

control and involvement in the registration of acephate is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1528. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1529. Because EPA's actions involving acephate "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1530. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1531. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding acephate do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1532. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1533. In the alternative, EPA's registration of products containing acephate are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FOURTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Alachlor)

1534. All allegations set forth above in this Complaint are incorporated herein by reference.

1535. EPA "affirmatively authorized" the use of alachlor through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. §

136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of alachlor is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1536. EPA has retained discretionary control and involvement over alachlor through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on alachlor show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of alachlor is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1537. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1538. Because EPA's actions involving alachlor "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1539. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1540. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding alachlor do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1541. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1542. In the alternative, EPA's registration of products containing alachlor are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Atrazine)

1543. All allegations set forth above in this Complaint are incorporated herein by reference.

1544. EPA "affirmatively authorized" the use of atrazine through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of atrazine is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1545. EPA has retained discretionary control and involvement over atrazine through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on atrazine show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of atrazine is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1546. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1547. Because EPA's actions involving atrazine "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1548. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1549. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding atrazine do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1550. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1551. In the alternative, EPA's registration of products containing atrazine are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Bensulide)

1552. All allegations set forth above in this Complaint are incorporated herein by reference.

1553. EPA "affirmatively authorized" the use of bensulide through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of bensulide is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1554. EPA has retained discretionary control and involvement over bensulide through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on bensulide show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA

has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of bensulide is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1555. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1556. Because EPA's actions involving bensulide "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1557. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1558. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding bensulide do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1559. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1560. In the alternative, EPA's registration of products containing bensulide are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SEVENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Bromadiolone)

1561. All allegations set forth above in this Complaint are incorporated herein by reference.

1562. EPA "affirmatively authorized" the use of bromadiolone through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a

pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of bromadiolone is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1563. EPA has retained discretionary control and involvement over bromadiolone through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on bromadiolone show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of bromadiolone is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1564. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1565. Because EPA's actions involving bromadiolone "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1566. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1567. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding bromadiolone do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1568. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1569. In the alternative, EPA's registration of products containing bromadiolone are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

EIGHTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Captan)

1570. All allegations set forth above in this Complaint are incorporated herein by reference.

1571. EPA "affirmatively authorized" the use of captan through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of captan is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1572. EPA has retained discretionary control and involvement over captan through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on captan show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of captan is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1573. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1574. Because EPA's actions involving captan "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1575. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1576. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding captan do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1577. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1578. In the alternative, EPA's registration of products containing captan are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

NINTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Carbaryl)

1579. All allegations set forth above in this Complaint are incorporated herein by reference.

1580. EPA "affirmatively authorized" the use of carbaryl through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of carbaryl is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1581. EPA has retained discretionary control and involvement over carbaryl through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on carbaryl show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA

has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of carbaryl is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1582. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1583. Because EPA's actions involving carbaryl "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1584. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1585. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding carbaryl do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1586. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1587. In the alternative, EPA's registration of products containing carbaryl are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Chlorothalonil)

1588. All allegations set forth above in this Complaint are incorporated herein by reference.

1589. EPA "affirmatively authorized" the use of chlorothalonil through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a

pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of chlorothalonil is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1590. EPA has retained discretionary control and involvement over chlorothalonil through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on chlorothalonil show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of chlorothalonil is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1591. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1592. Because EPA's actions involving chlorothalonil "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1593. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1594. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding chlorothalonil do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1595. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1596. In the alternative, EPA's registration of products containing chlorothalonil are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

ELEVENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Chlorpyrifos)

1597. All allegations set forth above in this Complaint are incorporated herein by reference.

1598. EPA "affirmatively authorized" the use of chlorpyrifos through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of chlorpyrifos is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1599. EPA has retained discretionary control and involvement over chlorpyrifos through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on chlorpyrifos show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of chlorpyrifos is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1600. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1601. Because EPA's actions involving chlorpyrifos "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1602. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1603. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding chlorpyrifos do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1604. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1605. In the alternative, EPA's registration of products containing chlorpyrifos are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWELVTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Diazinon)

1606. All allegations set forth above in this Complaint are incorporated herein by reference.

1607. EPA "affirmatively authorized" the use of diazinon through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of diazinon is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1608. EPA has retained discretionary control and involvement over diazinon through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on diazinon show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA

has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of diazinon is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1609. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1610. Because EPA's actions involving diazinon "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1611. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1612. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding diazinon do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1613. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1614. In the alternative, EPA's registration of products containing diazinon are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTEENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Dicamba And Salts)

1615. All allegations set forth above in this Complaint are incorporated herein by reference.

1616. EPA "affirmatively authorized" the use of dicamba and salts through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a

pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of dicamba and salts is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1617. EPA has retained discretionary control and involvement over dicamba and salts through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on dicamba and salts show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of dicamba and salts is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1618. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1619. Because EPA's actions involving dicamba and salts "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1620. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1621. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding dicamba and salts do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1622. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1623. In the alternative, EPA's registration of products containing dicamba and salts are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FOURTEENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Diuron)

1624. All allegations set forth above in this Complaint are incorporated herein by reference.

1625. EPA "affirmatively authorized" the use of diuron through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of diuron is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1626. EPA has retained discretionary control and involvement over diuron through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on diuron show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of diuron is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1627. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1628. Because EPA's actions involving diuron "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1629. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1630. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding diuron do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1631. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1632. In the alternative, EPA's registration of products containing diuron are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTEENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Ethoprop)

1633. All allegations set forth above in this Complaint are incorporated herein by reference.

1634. EPA "affirmatively authorized" the use of ethoprop through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of ethoprop is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1635. EPA has retained discretionary control and involvement over ethoprop through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on ethoprop show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA

has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of ethoprop is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1636. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1637. Because EPA's actions involving ethoprop "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1638. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1639. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding ethoprop do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1640. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1641. In the alternative, EPA's registration of products containing ethoprop are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTEENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On MCPA, salts and esters)

1642. All allegations set forth above in this Complaint are incorporated herein by reference.

1643. EPA "affirmatively authorized" the use of MCPA, salts and esters through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or

reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of MCPA, salts and esters is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1644. EPA has retained discretionary control and involvement over MCPA, salts and esters through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on MCPA, salts and esters show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of MCPA, salts and esters is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1645. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1646. Because EPA's actions involving MCPA, salts and esters "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1647. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1648. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding MCPA, salts and esters do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1649. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1650. In the alternative, EPA's registration of products containing MCPA, salts and esters are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SEVENTEENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Methomyl)

1651. All allegations set forth above in this Complaint are incorporated herein by reference.

1652. EPA "affirmatively authorized" the use of methomyl through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of methomyl is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1653. EPA has retained discretionary control and involvement over methomyl through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on methomyl show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of methomyl is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1654. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1655. Because EPA's actions involving methomyl "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1656. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1657. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding methomyl do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1658. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1659. In the alternative, EPA's registration of products containing methomyl are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

EIGHTEENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Metolachlor And Isomers)

1660. All allegations set forth above in this Complaint are incorporated herein by reference.

1661. EPA "affirmatively authorized" the use of metolachlor and isomers through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of metolachlor and isomers is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1662. EPA has retained discretionary control and involvement over metolachlor and isomers through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on metolachlor and isomers show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of metolachlor and isomers is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1663. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1664. Because EPA's actions involving metolachlor and isomers "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1665. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1666. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding metolachlor and isomers do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1667. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1668. In the alternative, EPA's registration of products containing metolachlor and isomers are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

NINETEENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Metribuzin)

1669. All allegations set forth above in this Complaint are incorporated herein by reference.

1670. EPA "affirmatively authorized" the use of metribuzin through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of metribuzin is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1671. EPA has retained discretionary control and involvement over metribuzin through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on metribuzin show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of metribuzin is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1672. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1673. Because EPA's actions involving metribuzin "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1674. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1675. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding metribuzin do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1676. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1677. In the alternative, EPA's registration of products containing metribuzin are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTIETH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Naled)

1678. All allegations set forth above in this Complaint are incorporated herein by reference.

1679. EPA "affirmatively authorized" the use of naled through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of naled is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1680. EPA has retained discretionary control and involvement over naled through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on naled show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control

and involvement in the registration of naled is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1681. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1682. Because EPA's actions involving naled "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1683. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1684. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding naled do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1685. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1686. In the alternative, EPA's registration of products containing naled are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-FIRST CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Oxydemeton-methyl)

1687. All allegations set forth above in this Complaint are incorporated herein by reference.

1688. EPA "affirmatively authorized" the use of oxydemeton-methyl through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. §

136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of oxydemeton-methyl is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1689. EPA has retained discretionary control and involvement over oxydemeton-methyl through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on oxydemeton-methyl show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of oxydemeton-methyl is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1690. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1691. Because EPA's actions involving oxydemeton-methyl "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1692. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1693. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding oxydemeton-methyl do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1694. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1695. In the alternative, EPA's registration of products containing oxydemeton-methyl are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-SECOND CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Oxyfluorfen)

1696. All allegations set forth above in this Complaint are incorporated herein by reference.

1697. EPA "affirmatively authorized" the use of oxyfluorfen through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of oxyfluorfen is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1698. EPA has retained discretionary control and involvement over oxyfluorfen through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on oxyfluorfen show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of oxyfluorfen is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1699. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1700. Because EPA's actions involving oxyfluorfen "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1701. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1702. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding oxyfluorfen do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1703. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1704. In the alternative, EPA's registration of products containing oxyfluorfen are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-THIRD CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Paraquat Dichloride)

1705. All allegations set forth above in this Complaint are incorporated herein by reference.

1706. EPA "affirmatively authorized" the use of paraquat dichloride through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of paraquat dichloride is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1707. EPA has retained discretionary control and involvement over paraquat dichloride through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on paraquat dichloride show that registration of this pesticide has an "ongoing and long-lasting

effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of paraquat dichloride is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1708. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1709. Because EPA's actions involving paraquat dichloride "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1710. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1711. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding paraquat dichloride do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1712. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1713. In the alternative, EPA's registration of products containing paraquat dichloride are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-FOURTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Pendimethalin)

1714. All allegations set forth above in this Complaint are incorporated herein by reference.

1715. EPA "affirmatively authorized" the use of pendimethalin through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency

activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of pendimethalin is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1716. EPA has retained discretionary control and involvement over pendimethalin through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on pendimethalin show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of pendimethalin is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1717. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1718. Because EPA's actions involving pendimethalin "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1719. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1720. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding pendimethalin do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1721. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1722. In the alternative, EPA's registration of products containing pendimethalin are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-FIFTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Phorate)

1723. All allegations set forth above in this Complaint are incorporated herein by reference.

1724. EPA "affirmatively authorized" the use of phorate through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of phorate is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1725. EPA has retained discretionary control and involvement over phorate through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on phorate show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of phorate is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1726. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1727. Because EPA's actions involving phorate "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1728. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1729. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding phorate do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1730. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1731. In the alternative, EPA's registration of products containing phorate are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-SIXTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Phosmet)

1732. All allegations set forth above in this Complaint are incorporated herein by reference.

1733. EPA "affirmatively authorized" the use of phosmet through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of phosmet is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1734. EPA has retained discretionary control and involvement over phosmet through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on phosmet show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of phosmet is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1735. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1736. Because EPA's actions involving phosmet "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1737. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1738. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding phosmet do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1739. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1740. In the alternative, EPA's registration of products containing phosmet are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-SEVENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Propanil)

1741. All allegations set forth above in this Complaint are incorporated herein by reference.

1742. EPA "affirmatively authorized" the use of propanil through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of propanil is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1743. EPA has retained discretionary control and involvement over propanil through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on propanil show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of propanil is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1744. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1745. Because EPA's actions involving propanil "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1746. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1747. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding propanil do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1748. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1749. In the alternative, EPA's registration of products containing propanil are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-EIGHTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Propargite)

1750. All allegations set forth above in this Complaint are incorporated herein by reference.

1751. EPA "affirmatively authorized" the use of propargite through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of propargite is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1752. EPA has retained discretionary control and involvement over propargite through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on propargite show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of propargite is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1753. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1754. Because EPA's actions involving propargite "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1755. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1756. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding propargite do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1757. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1758. In the alternative, EPA's registration of products containing propargite are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

TWENTY-NINTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On S,S,S-tributyl phosphorotrithioate)

1759. All allegations set forth above in this Complaint are incorporated herein by reference.

1760. EPA "affirmatively authorized" the use of S,S,S-tributyl phosphorotrithioate through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of S,S,S-tributyl phosphorotrithioate is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1761. EPA has retained discretionary control and involvement over S,S,S-tributyl phosphorotrithioate through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on S,S,S-tributyl phosphorotrithioate show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of S,S,S-tributyl phosphorotrithioate is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1762. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1763. Because EPA's actions involving S,S,S-tributyl phosphorotrithioate "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1764. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1765. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding S,S,S-tributyl phosphorotrithioate do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1766. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1767. In the alternative, EPA's registration of products containing S,S,S-tributyl phosphorotrithioate are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTIETH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Thiobencarb)

1768. All allegations set forth above in this Complaint are incorporated herein by reference.

1769. EPA "affirmatively authorized" the use of thiobencarb through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of thiobencarb is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1770. EPA has retained discretionary control and involvement over thiobencarb through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on thiobencarb show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary control and involvement in the registration of thiobencarb is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1771. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1772. Because EPA's actions involving thiobencarb "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1773. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1774. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding thiobencarb do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1775. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1776. In the alternative, EPA's registration of products containing thiobencarb are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-FIRST CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Consult On Trifluralin)

1777. All allegations set forth above in this Complaint are incorporated herein by reference.

1778. EPA "affirmatively authorized" the use of trifluralin through its registration and reregistration of the pesticide. EPA has discretion to influence or change this underlying agency activity for the benefit of protected species. For example, EPA may only register or reregister a pesticide if its use does not cause an unreasonable adverse effect on the environment. 7 U.S.C. § 136a(c)(5). EPA may also change, cancel, restrict, or immediately suspend registered pesticides, pesticide labeling, or particular uses at any time if it appears that the pesticide is causing an unreasonable adverse effect on the environment. 7 U.S.C. § 136d(c). Thus, EPA's registration of trifluralin is an "affirmative agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1779. EPA has retained discretionary control and involvement over trifluralin through its subsequent actions set forth above in the Complaint. These subsequent actions taken by EPA on trifluralin show that registration of this pesticide has an "ongoing and long-lasting effect" and that EPA has "continuing authority" over regulation of this pesticide. Thus, EPA's continued discretionary

control and involvement in the registration of trifluralin is "ongoing agency action" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1780. The actions subsequent to the registration, including product registration, as set forth above, constitute additional "affirmative agency actions" subject to consultation under Section 7(a)(2) of the ESA. 16 U.S.C. § 1536(a)(2).

1781. Because EPA's actions involving trifluralin "may affect" the listed species named in Exhibit A and their designated critical habitat, EPA is required to initiate consultation with the Service. 50 C.F.R. § 402.14(a); 50 C.F.R. § 402.16.

1782. EPA has not initiated consultation with the Service on the affected endangered and threatened species listed in Exhibit A or their designated critical habitat.

1783. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to initiate consultation with the Service and by failing to ensure through consultation that its actions regarding trifluralin do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1784. EPA's failure to consult on these actions constitutes violations of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1785. In the alternative, EPA's registration of products containing trifluralin are final actions that do not follow a hearing, which are therefore judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-SECOND CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On 2,4-D, salts and esters)

1786. All allegations set forth above in this Complaint are incorporated herein by reference.

1787. In 1989, EPA consulted with the Services regarding 2,4-D, salts and esters, and a Biological Opinion was issued.

1788. As discussed above, EPA retains discretionary involvement and control over 2,4-D, salts and esters, and this discretion can be used for the benefit of ESA protected species.

1789. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to 2,4-D, salts and esters.

1790. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1791. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding 2,4-D, salts and esters do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1792. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1793. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-THIRD CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Acephate)

1794. All allegations set forth above in this Complaint are incorporated herein by reference.

1795. In 1989, EPA consulted with the Services regarding acephate, and a Biological Opinion was issued.

1796. As discussed above, EPA retains discretionary involvement and control over acephate, and this discretion can be used for the benefit of ESA protected species.

1797. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to acephate.

1798. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1799. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding acephate do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1800. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1801. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-FOURTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Aldicarb)

1802. All allegations set forth above in this Complaint are incorporated herein by reference.

1803. In 1989, EPA consulted with the Services regarding aldicarb, and a Biological Opinion was issued.

1804. As discussed above, EPA retains discretionary involvement and control over aldicarb, and this discretion can be used for the benefit of ESA protected species.

1805. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to aldicarb.

1806. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1807. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding aldicarb do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1808. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1809. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-FIFTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Atrazine)

1810. All allegations set forth above in this Complaint are incorporated herein by reference.

1811. In 1989, EPA consulted with the Services regarding atrazine, and a Biological Opinion was issued.

1812. As discussed above, EPA retains discretionary involvement and control over atrazine, and this discretion can be used for the benefit of ESA protected species.

1813. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to atrazine.

1814. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1815. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding atrazine do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1816. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1817. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-SIXTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Bensulide)

1818. All allegations set forth above in this Complaint are incorporated herein by reference.

1819. In 1989, EPA consulted with the Services regarding bensulide, and a Biological Opinion was issued.

1820. As discussed above, EPA retains discretionary involvement and control over bensulide, and this discretion can be used for the benefit of ESA protected species.

1821. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to bensulide.

1822. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1823. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding bensulide and esters do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1824. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1825. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-SEVENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Brodifacoum)

1826. All allegations set forth above in this Complaint are incorporated herein by reference.

1827. In 1993, EPA consulted with the Services regarding brodifacoum, and a Biological Opinion was issued.

1828. As discussed above, EPA retains discretionary involvement and control over brodifacoum, and this discretion can be used for the benefit of ESA protected species.

1829. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to brodifacoum.

1830. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1831. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding brodifacoum do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1832. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1833. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-EIGHTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Bromadiolone)

1834. All allegations set forth above in this Complaint are incorporated herein by reference.

1835. In 1993, EPA consulted with the Services regarding bromadiolone, and a Biological Opinion was issued.

1836. As discussed above, EPA retains discretionary involvement and control over bromadiolone, and this discretion can be used for the benefit of ESA protected species.

1837. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to bromadiolone.

1838. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1839. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding bromadiolone do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1840. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1841. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

THIRTY-NINTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Bromethalin)

1842. All allegations set forth above in this Complaint are incorporated herein by reference.

1843. In 1993, EPA consulted with the Services regarding bromethalin, and a Biological Opinion was issued.

1844. As discussed above, EPA retains discretionary involvement and control over bromethalin, and this discretion can be used for the benefit of ESA protected species.

1845. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to bromethalin.

1846. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1847. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions

regarding bromethalin do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1848. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1849. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTIETH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Captan)

1850. All allegations set forth above in this Complaint are incorporated herein by reference.

1851. In 1989, EPA consulted with the Services regarding captan, and a Biological Opinion was issued.

1852. As discussed above, EPA retains discretionary involvement and control over captan, and this discretion can be used for the benefit of ESA protected species.

1853. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to captan.

1854. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1855. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding captan do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1856. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1857. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-FIRST CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Carbaryl)

1858. All allegations set forth above in this Complaint are incorporated herein by reference.

1859. In 1989, EPA consulted with the Services regarding carbaryl, and a Biological Opinion was issued.

1860. As discussed above, EPA retains discretionary involvement and control over carbaryl, and this discretion can be used for the benefit of ESA protected species.

1861. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to carbaryl.

1862. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1863. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding carbaryl do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1864. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1865. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-SECOND CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Chlorophacinone)

1866. All allegations set forth above in this Complaint are incorporated herein by reference.

1867. In 1993, EPA consulted with the Services regarding chlorophacinone, and a Biological Opinion was issued.

1868. As discussed above, EPA retains discretionary involvement and control over chlorophacinone, and this discretion can be used for the benefit of ESA protected species.

1869. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to chlorophacinone.

1870. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1871. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding chlorophacinone do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1872. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1873. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-THIRD CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Chlorothalonil)

1874. All allegations set forth above in this Complaint are incorporated herein by reference.

1875. In 1989, EPA consulted with the Services regarding chlorothalonil, and a Biological Opinion was issued.

1876. As discussed above, EPA retains discretionary involvement and control over chlorothalonil, and this discretion can be used for the benefit of ESA protected species.

1877. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to chlorothalonil.

1878. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1879. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding chlorothalonil do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1880. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1881. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-FOURTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Chlorpyrifos)

1882. All allegations set forth above in this Complaint are incorporated herein by reference.

1883. In 1989, EPA consulted with the Services regarding chlorpyrifos, and a Biological Opinion was issued.

1884. As discussed above, EPA retains discretionary involvement and control over chlorpyrifos, and this discretion can be used for the benefit of ESA protected species.

1885. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to chlorpyrifos.

1886. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1887. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding chlorpyrifos do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1888. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1889. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-FIFTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Cypermethrin)

1890. All allegations set forth above in this Complaint are incorporated herein by reference.

1891. In 1989, EPA consulted with the Services regarding cypermethrin, and a Biological Opinion was issued.

1892. As discussed above, EPA retains discretionary involvement and control over cypermethrin, and this discretion can be used for the benefit of ESA protected species.

1893. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to cypermethrin.

1894. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1895. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions

regarding cypermethrin do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1896. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1897. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-SIXTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Dazoment)

1898. All allegations set forth above in this Complaint are incorporated herein by reference.

1899. In 1989, EPA consulted with the Services regarding dazomet, and a Biological Opinion was issued.

1900. As discussed above, EPA retains discretionary involvement and control over dazomet, and this discretion can be used for the benefit of ESA protected species.

1901. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to dazomet.

1902. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1903. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding dazomet do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1904. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1905. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-SEVENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Diazinon)

1906. All allegations set forth above in this Complaint are incorporated herein by reference.

1907. In 1989, EPA consulted with the Services regarding diazinon, and a Biological Opinion was issued.

1908. As discussed above, EPA retains discretionary involvement and control over diazinon, and this discretion can be used for the benefit of ESA protected species.

1909. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to diazinon.

1910. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1911. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding diazinon do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1912. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1913. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-EIGHTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Dicamba)

1914. All allegations set forth above in this Complaint are incorporated herein by reference.

1915. In 1989, EPA consulted with the Services regarding dicamba, and a Biological Opinion was issued.

1916. As discussed above, EPA retains discretionary involvement and control over dicamba, and this discretion can be used for the benefit of ESA protected species.

1917. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to dicamba.

1918. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1919. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding dicamba do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1920. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1921. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FORTY-NINTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Dichlorprop)

1922. All allegations set forth above in this Complaint are incorporated herein by reference.

1923. In 1989, EPA consulted with the Services regarding dichlorprop, and a Biological Opinion was issued.

1924. As discussed above, EPA retains discretionary involvement and control over dichlorprop, and this discretion can be used for the benefit of ESA protected species.

1925. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to dichlorprop.

1926. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1927. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding dichlorprop do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1928. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1929. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTIETH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Dimethoate)

1930. All allegations set forth above in this Complaint are incorporated herein by reference.

1931. In 1989, EPA consulted with the Services regarding dimethoate, and a Biological Opinion was issued.

1932. As discussed above, EPA retains discretionary involvement and control over dimethoate, and this discretion can be used for the benefit of ESA protected species.

1933. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to dimethoate.

1934. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1935. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding dimethoate do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1936. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1937. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-FIRST CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Diphacinone)

1938. All allegations set forth above in this Complaint are incorporated herein by reference.

1939. In 1993, EPA consulted with the Services regarding diphacinone, and a Biological Opinion was issued.

1940. As discussed above, EPA retains discretionary involvement and control over diphacinone, and this discretion can be used for the benefit of ESA protected species.

1941. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to diphacinone.

1942. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1943. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding diphacinone do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1944. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1945. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-SECOND CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Diuron)

1946. All allegations set forth above in this Complaint are incorporated herein by reference.

1947. In 1989, EPA consulted with the Services regarding diuron, and a Biological Opinion was issued.

1948. As discussed above, EPA retains discretionary involvement and control over diuron, and this discretion can be used for the benefit of ESA protected species.

1949. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to diuron.

1950. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1951. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding diuron do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1952. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1953. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-THIRD CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Ethoprop)

1954. All allegations set forth above in this Complaint are incorporated herein by reference.

1955. In 1989, EPA consulted with the Services regarding ethoprop, and a Biological Opinion was issued.

1956. As discussed above, EPA retains discretionary involvement and control over ethoprop, and this discretion can be used for the benefit of ESA protected species.

1957. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to ethoprop.

1958. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1959. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding ethoprop do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1960. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1961. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-FOURTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Malathion)

1962. All allegations set forth above in this Complaint are incorporated herein by reference.

1963. In 1989, EPA consulted with the Services regarding malathion, and a Biological Opinion was issued.

1964. As discussed above, EPA retains discretionary involvement and control over malathion, and this discretion can be used for the benefit of ESA protected species.

1965. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to malathion.

1966. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1967. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding malathion do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1968. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1969. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-FIFTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Mancozeb)

1970. All allegations set forth above in this Complaint are incorporated herein by reference.

1971. In 1989, EPA consulted with the Services regarding mancozeb, and a Biological Opinion was issued.

1972. As discussed above, EPA retains discretionary involvement and control over mancozeb, and this discretion can be used for the benefit of ESA protected species.

1973. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to mancozeb.

1974. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1975. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding mancozeb do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1976. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1977. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-SIXTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Methomyl)

1978. All allegations set forth above in this Complaint are incorporated herein by reference.

1979. In 1989, EPA consulted with the Services regarding methomyl, and a Biological Opinion was issued.

1980. As discussed above, EPA retains discretionary involvement and control over methomyl, and this discretion can be used for the benefit of ESA protected species.

1981. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to methomyl.

1982. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1983. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding methomyl do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1984. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1985. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-SEVENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Naled)

1986. All allegations set forth above in this Complaint are incorporated herein by reference.

1987. In 1989, EPA consulted with the Services regarding naled, and a Biological Opinion was issued.

1988. As discussed above, EPA retains discretionary involvement and control over naled, and this discretion can be used for the benefit of ESA protected species.

1989. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to naled.

1990. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1991. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding naled do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

1992. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

1993. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-EIGHTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Oxydemeton-methyl)

1994. All allegations set forth above in this Complaint are incorporated herein by reference.

1995. In 1989, EPA consulted with the Services regarding oxydemeton-methyl, and a Biological Opinion was issued.

1996. As discussed above, EPA retains discretionary involvement and control over oxydemeton-methyl, and this discretion can be used for the benefit of ESA protected species.

1997. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to oxydemeton-methyl.

1998. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

1999. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding oxydemeton-methyl do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2000. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2001. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

FIFTY-NINTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Oxyfluorfen)

2002. All allegations set forth above in this Complaint are incorporated herein by reference.

2003. In 1989, EPA consulted with the Services regarding oxyfluorfen, and a Biological Opinion was issued.

2004. As discussed above, EPA retains discretionary involvement and control over oxyfluorfen, and this discretion can be used for the benefit of ESA protected species.

2005. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to oxyfluorfen.

2006. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2007. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding oxyfluorfen do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2008. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2009. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTIETH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Paraquat Dichloride)

2010. All allegations set forth above in this Complaint are incorporated herein by reference.

2011. In 1989, EPA consulted with the Services regarding paraquat dichloride, and a Biological Opinion was issued.

2012. As discussed above, EPA retains discretionary involvement and control over paraquat dichloride, and this discretion can be used for the benefit of ESA protected species.

2013. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to paraquat dichloride.

2014. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2015. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding paraquat dichloride do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2016. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2017. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-FIRST CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Pendimethalin)

2018. All allegations set forth above in this Complaint are incorporated herein by reference.

2019. In 1989, EPA consulted with the Services regarding pendimethalin, and a Biological Opinion was issued.

2020. As discussed above, EPA retains discretionary involvement and control over pendimethalin, and this discretion can be used for the benefit of ESA protected species.

2021. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to pendimethalin.

2022. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2023. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding pendimethalin do not jeopardize the continued existence of endangered and threatened

species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2024. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2025. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-SECOND CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Permethrin)

2026. All allegations set forth above in this Complaint are incorporated herein by reference.

2027. In 1989, EPA consulted with the Services regarding permethrin, and a Biological Opinion was issued.

2028. As discussed above, EPA retains discretionary involvement and control over permethrin, and this discretion can be used for the benefit of ESA protected species.

2029. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to permethrin.

2030. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2031. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding permethrin do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2032. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2033. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-THIRD CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Phorate)

2034. All allegations set forth above in this Complaint are incorporated herein by reference.

2035. In 1989, EPA consulted with the Services regarding phorate, and a Biological Opinion was issued.

2036. As discussed above, EPA retains discretionary involvement and control over phorate, and this discretion can be used for the benefit of ESA protected species.

2037. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to phorate.

2038. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2039. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding phorate do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2040. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2041. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-FOURTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Phosmet)

2042. All allegations set forth above in this Complaint are incorporated herein by reference.

2043. In 1989, EPA consulted with the Services regarding phosmet, and a Biological Opinion was issued.

2044. As discussed above, EPA retains discretionary involvement and control over phosmet, and this discretion can be used for the benefit of ESA protected species.

2045. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to phosmet.

2046. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2047. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding phosmet do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2048. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2049. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-FIFTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Profenofos)

2050. All allegations set forth above in this Complaint are incorporated herein by reference.

2051. In 1989, EPA consulted with the Services regarding profenofos, and a Biological Opinion was issued.

2052. As discussed above, EPA retains discretionary involvement and control over profenofos, and this discretion can be used for the benefit of ESA protected species.

2053. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to profenofos.

2054. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2055. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding profenofos do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2056. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2057. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-SIXTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Propargite)

2058. All allegations set forth above in this Complaint are incorporated herein by reference.

2059. In 1989, EPA consulted with the Services regarding propargite, and a Biological Opinion was issued.

2060. As discussed above, EPA retains discretionary involvement and control over propargite, and this discretion can be used for the benefit of ESA protected species.

2061. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to propargite.

2062. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2063. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding propargite do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2064. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2065. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-SEVENTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Simazine)

2066. All allegations set forth above in this Complaint are incorporated herein by reference.

2067. In 1989, EPA consulted with the Services regarding simazine, and a Biological Opinion was issued.

2068. As discussed above, EPA retains discretionary involvement and control over simazine, and this discretion can be used for the benefit of ESA protected species.

2069. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to simazine.

2070. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2071. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding simazine do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2072. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2073. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-EIGHTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On S,S,S-tributyl phosphorotrithioate)

2074. All allegations set forth above in this Complaint are incorporated herein by reference.

2075. In 1989, EPA consulted with the Services regarding S,S,S-tributyl phosphorotrithioate, and a Biological Opinion was issued.

2076. As discussed above, EPA retains discretionary involvement and control over S,S,S-tributyl phosphorotrithioate, and this discretion can be used for the benefit of ESA protected species.

2077. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to S,S,S-tributyl phosphorotrithioate.

2078. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2079. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding S,S,S-tributyl phosphorotrithioate do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2080. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2081. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SIXTY-NINTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Terbufos)

2082. All allegations set forth above in this Complaint are incorporated herein by reference.

2083. In 1989, EPA consulted with the Services regarding terbufos, and a Biological Opinion was issued.

2084. As discussed above, EPA retains discretionary involvement and control over terbufos, and this discretion can be used for the benefit of ESA protected species.

2085. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to terbufos.

2086. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2087. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding terbufos do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2088. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2089. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SEVENTIETH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Thiophanate-methyl)

2090. All allegations set forth above in this Complaint are incorporated herein by reference.

2091. In 1989, EPA consulted with the Services regarding thiophanate-methyl, and a Biological Opinion was issued.

2092. As discussed above, EPA retains discretionary involvement and control over thiophanate-methyl, and this discretion can be used for the benefit of ESA protected species.

2093. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to thiophanate-methyl.

2094. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2095. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding thiophanate-methyl do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2096. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2097. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SEVENTY-FIRST CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Trichlorofon)

2098. All allegations set forth above in this Complaint are incorporated herein by reference.

2099. In 1989, EPA consulted with the Services regarding trichlorofon, and a Biological Opinion was issued.

2100. As discussed above, EPA retains discretionary involvement and control over trichlorofon, and this discretion can be used for the benefit of ESA protected species.

2101. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to trichlorofon.

2102. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2103. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding trichlorofon do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2104. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2105. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SEVENTY-SECOND CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Trifluralin)

2106. All allegations set forth above in this Complaint are incorporated herein by reference.

2107. In 1989, EPA consulted with the Services regarding trifluralin, and a Biological Opinion was issued.

2108. As discussed above, EPA retains discretionary involvement and control over trifluralin, and this discretion can be used for the benefit of ESA protected species.

2109. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to trifluralin.

2110. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2111. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding trifluralin do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2112. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2113. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SEVENTY-THIRD CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Warfarin)

2114. All allegations set forth above in this Complaint are incorporated herein by reference.

2115. In 1989, EPA consulted with the Services regarding warfarin, and a Biological Opinion was issued.

2116. As discussed above, EPA retains discretionary involvement and control over warfarin, and this discretion can be used for the benefit of ESA protected species.

2117. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to warfarin.

2118. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2119. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding warfarin do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2120. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2121. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

SEVENTY-FOURTH CLAIM FOR RELIEF

Violation Of The Endangered Species Act, 16 U.S.C. § 1536(a)(2)

(EPA's Failure To Reinitiate Consultation On Zinc Phosphide)

2122. All allegations set forth above in this Complaint are incorporated herein by reference.

2123. In 1989, EPA consulted with the Services regarding zinc phosphide, and a Biological Opinion was issued.

2124. As discussed above, EPA retains discretionary involvement and control over zinc phosphide, and this discretion can be used for the benefit of ESA protected species.

2125. In addition, as discussed above, a trigger for reinitiation of consultation has occurred in regard to zinc phosphide.

2126. Despite the occurrence of a trigger, EPA has not reinitiated consultation with the Service.

2127. EPA is violating Section 7(a)(2) of the ESA and its implementing regulations by failing to reinitiate consultation with the Service and by failing to ensure through consultation that its actions regarding zinc phosphide do not jeopardize the continued existence of endangered and threatened species or destroy or adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. Part 402.

2128. EPA's failure to reinitiate consultation constitutes a violation of the ESA within the meaning of the ESA's citizen suit provision, 16 U.S.C. § 1540(g), which provides jurisdiction over this claim.

2129. In the alternative, because the trigger for reinitiation of consultation did not follow a hearing, this claim is judicially reviewable by the district court under FIFRA § 16(a), 7 § U.S.C. 136n(a).

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that the Court enter judgment providing the following relief:

1. Declare that EPA is violating Section 7(a)(2) of the ESA by failing to consult with the Service concerning effects of pesticides on the endangered and threatened species and critical habitats identified herein;

2. Order EPA to begin or reinitiate consultation pursuant to Section 7(a)(2) of the ESA on the effects of pesticides identified herein on the endangered and threatened species and critical habitats identified herein in an expeditious fashion;

3. Order appropriate restrictions on the use of the identified pesticides where they may affect endangered and threatened species and critical habitats until the consultation process has been completed;

4. Award Plaintiffs' costs, including reasonable attorneys' fees and expert witness fees; and

5. Grant Plaintiffs such additional and further relief as the Court may deem just and appropriate.

Respectfully submitted this 5th day of June, 2013,

/s/ Justin Augustine

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* Granted admission *pro hac vice*