

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT FOR COLUMBIA**

CENTER FOR BIOLOGICAL)
DIVERSITY)
378 N. Main Ave.)
Tucson, AZ 85702,)

and)

CENTER FOR FOOD SAFETY)
660 Pennsylvania Ave. SE #402)
Washington, DC 20003,)

Plaintiffs,)

v.)

Civil Action No. 19-cv-02898

DAVID BERNHARDT, Secretary,)
U.S. Department of the Interior,)
in his official capacity,)
1849 C Street NW)
Washington, DC 20240,)

**COMPLAINT FOR DECLARATORY
AND INJUNCTIVE RELIEF**

MARGARET EVERSON, Principal)
Deputy Director, U.S. Fish and)
Wildlife Service, in her official capacity,)
1849 C Street NW)
Washington, DC 20240,)

U.S. FISH AND WILDLIFE SERVICE,)
an administrative agency of the U.S.)
Department of the Interior,)
1849 C Street NW)
Washington, DC 20240,)

and)

U.S. DEPARTMENT OF THE INTERIOR)
1849 C Street NW)
Washington, DC 20240,)

Defendants.)

_____)

I. INTRODUCTION

1. In this action, Plaintiffs Center for Biological Diversity and Center for Food Safety (collectively Conservation Organizations) challenge a final, nationwide decision by the United States Fish and Wildlife Service (FWS) and the United States Department of the Interior (DOI) (collectively Defendants) to allow for the use of bee and bird-killing neonicotinoid pesticides and pesticide-intensive genetically engineered (GE) crops for agricultural purposes in this country's unique and irreplaceable national wildlife refuges. Plaintiffs bring this civil action under the Administrative Procedure Act (APA), 5 U.S.C. §§ 701-706, and the Endangered Species Act (ESA), 16 U.S.C. §§ 1531-1544, for violations of the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4370f, the National Wildlife Refuge System Administration Act (Refuge Act), as amended by the National Wildlife Refuge System Improvement Act, 16 U.S.C. §§ 668dd-668ee, and the ESA.

2. The National Wildlife Refuge System (Refuge System) is America's largest collection of lands specifically set aside for the preservation of fish and wildlife. In creating the Refuge System, Congress resolutely established a present *and future* national commitment to ensuring that these lands are managed to support the conservation of fish, wildlife, and plant species—including endangered and threatened species—and their habitats. 16 U.S.C. § 668dd(a)(2), (a)(4)(A); *see also* H.R. Rep. No. 105-106 (1997) (establishing that “the fundamental mission of [the] Refuge System is wildlife conservation: wildlife and wildlife conservation must come first”).

3. To achieve this mission, Congress directed Defendants to “ensure that the biological integrity, diversity, and environmental health of the [Refuge] System are maintained” through its actions. 16 U.S.C. § 668dd(a)(4)(B).

4. In furtherance of the Refuge Act's biological integrity and wildlife conservation objectives for the Refuge System, FWS in 2014 issued a decision requiring that neonicotinoid pesticides and GE crops be phased out from use in the Refuge System by January 2016 (hereinafter the 2014 Decision). *See* Exhibit A.¹ In support of its decision to phase out neonicotinoid pesticide uses, FWS explicitly found that the "prophylactic use, such as a seed treatment, of the neonicotinoid pesticides that can distribute systemically in a plant and can potentially affect a broad spectrum of non-target species *is not consistent with [FWS] policy*" or the Refuge Act. *Id.* (emphasis added). With regards to the continued use of GE crops in the Refuge System, FWS further explicitly found that because "[r]efuges throughout the country" had successfully demonstrated their ability to meet wildlife management objectives and accomplish refuge purposes and the objectives of the Refuge Act without the use of GE crops, that it was "no longer possible to say that [the use of GE crops was] essential to meet wildlife management objectives," and that as a general policy such practices must be discontinued except in unusual circumstances. *Id.* The 2014 Decision allowed the possibility for neonicotinoid pesticides or GE crops to be utilized by a refuge on a case-by-case basis, but only when essential to meet the refuge's wildlife management objectives.

5. On information and belief, following the 2014 Decision, Defendants in fact ended the use of these harmful practices on all refuges in the Refuge System except those specifically granted an exception in the 2014 Decision based on mandates unique to those refuges.²

¹ U.S. Fish & Wildlife Serv., "Use of Agricultural Practices in Wildlife Management in the National Wildlife Refuge System" (July 17, 2014) (attached as Exhibit A).

² The 2014 Decision provides that "[r]efuges with lands mandated for agricultural purposes, including, but not limited to, Tule Lake, Upper and Lower Klamath [National Wildlife Refuges] subject to Public Law 88-567 (Kuchel Act 1964) and Crab Orchard [National Wildlife Refuge]

6. Nevertheless, on August 2, 2018, without any advanced notice to the public or opportunity for public engagement, and without any compliance with NEPA or the ESA, FWS abruptly issued a decision completely reversing the 2014 Decision and jettisoning the important pesticide and GE crop reduction commitments and benchmarks that had been achieved through the 2014 Decision (hereinafter the 2018 Decision). *See* Exhibit B.³ The 2018 Decision does not explain how the use of harmful neonicotinoid pesticides and GE crops can now be operated in conformity with FWS policy or in compliance with the requirements of the Refuge Act.

7. According to the 2018 Decision, it is now the official position of Defendants that the use of bird and bee-killing neonicotinoid pesticides and pesticide-intensive GE crops can be utilized in the Refuge System and on national wildlife refuges, including on refuges that were established specifically for the purpose of conserving and protecting critically endangered wildlife.

8. The 2018 Decision represents Defendants' formal position on these uses and is binding on the FWS and its management of the Refuge System. It is a final agency action from which important legal, policy, and practical consequences flow.

9. Defendants' 2018 Decision—which lacks any reasoned basis—is contrary to the plain language and fundamental purpose of the Refuge Act and its implementing regulations and policies. Defendants' 2018 Decision was also adopted in flagrant violation of NEPA because Defendants failed to consider and disclose the significant environmental impacts of reintroducing neonicotinoid pesticides and GE crops back into the Refuge System. It was also adopted in

subject to Public Law 80-361 may follow these agreements, however, the mandates which direct those refuges' purposes are their primary authority.”

³ U.S. Fish & Wildlife Serv., “Withdrawal of Memorandum Titled, ‘Use of Agricultural Practices in Wildlife Management in the National Wildlife Refuge System’ (July 17, 2014)” (Aug. 2, 2018) (attached as Exhibit B).

violation of the procedural and substantive requirements of the ESA, which demand that Defendants engage in consultation prior to taking an action to guarantee that the 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 designated critical habitat. 16 U.S.C. § 1536(a)(2).

10. Accordingly, Plaintiffs seek an order: (1) declaring Defendants’ 2018 Decision to be invalid; (2) vacating the 2018 Decision; and (3) remanding to Defendants for compliance with federal law.

II. JURISDICTION AND VENUE

11. This Court has jurisdiction pursuant to 28 U.S.C. § 1331 (federal question); 28 U.S.C. § 2201 (declaratory relief); 28 U.S.C. § 1346 (United States as defendant); 5 U.S.C. §§ 701-706 (APA); and 16 U.S.C. § 1540(g) (ESA district court jurisdiction and citizen suit jurisdiction).

12. Plaintiffs provided the FWS and DOI with written notice on August 8, 2018, more than 60 days ago, of their intent to bring suit for violations of the ESA as required by statute, 16 U.S.C. § 1540(g)(2)(A). *See* Exhibit C. Defendants have not remedied the violations set out in that letter.

13. Venue in this Court is proper under 28 U.S.C. § 1391(e) because one or more of the Plaintiffs resides in this judicial district; because one or more Defendants, having authority over the actions or inactions alleged herein, reside in this judicial district; and because a substantial part of the events or omissions giving rise to the claims occurred in the District of Columbia.

III. PARTIES

14. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY (CBD) is a nonprofit, public interest organization dedicated to the protection of native species and their habitats through science, policy, education, and environmental law. For decades CBD has worked to protect imperiled plants and wildlife, open spaces, and air and water quality, as well as to preserve the overall quality of life for people and animals. CBD has more than 1.6 million members and online supporters nationwide, is incorporated in California, and is headquartered in Tucson, Arizona, with field offices throughout the United States and Mexico, including in Washington, DC.

15. In support of its mission, CBD and its members regularly participate in efforts intended to address threats to imperiled species, the environment, and public health from harmful pesticide and other toxic chemical uses. To that end, CBD and its members are concerned with and affected by, and actively seek to secure programmatic changes to, the use of industrial agricultural practices on national wildlife refuges, and to stop the toxic use of pesticides and GE crops on refuges. CBD is especially concerned with the impacts of these practices as they relate to pesticides entering refuge lands and waters; harming birds, fish, and other wildlife; and contaminating the habitats and food sources of these animals.⁴ CBD also regularly submits

⁴ See, e.g., *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, Case No. 17-cv-468 (D. Or. filed Mar. 23, 2017); *Ctr. for Biological Diversity, Ctr. for Food Safety, & Tennessee Riverkeeper, Petition to the U.S. Fish and Wildlife Service and U.S. Department of the Interior to Re-Open the Comment Period or, in the Alternative, for Reconsideration of the Service's "Compatibility Determination for Cooperative Farming" for the Wheeler National Wildlife Refuge Complex* (Sept. 6, 2018) (hereinafter "2018 Wheeler Pesticide Petition"), available at https://www.biologicaldiversity.org/programs/environmental_health/pdfs/Wheeler-Pesticide-Petition.pdf; *Ctr. for Food Safety, Ctr. for Biological Diversity, Public Employees for Env'tl. Responsibility, & Beyond Pesticides, Petition to the U.S. Fish and Wildlife Service to Ban Genetically Engineered Crops and Neonicotinoid Insecticides on all National Wildlife Refuges*

comments and litigates over federal regulatory processes related to the registration and use of pesticide products.⁵

16. CBD further advances programs and campaigns to combat the extensive risk to ecosystems, wildlife, and environmental health from the continued use of neonicotinoid and other pesticides for agricultural purposes in the Refuge System,⁶ efforts that have required more organizational resources to be diverted since Defendants finalized the 2018 Decision. By way of example, as a result of and to increase transparency around Defendants' implementation of the 2018 Decision, CBD has had to file and pursue numerous public records requests with the FWS under the Freedom of Information Act (FOIA). CBD will need to file and pursue additional FOIA requests in the future to obtain updated information on Defendants' continued implementation of the 2018 Decision since that information is not available on any public website or readily publicly accessible medium, efforts that will require additional resources that

(Feb. 25, 2014) (hereinafter “2014 Refuge Petition”), available at http://www.centerforfoodsafety.org/files/refuge-petition_2_24_14_final_38986.pdf.

⁵ See, e.g., *Ctr. for Biological Diversity v. U.S. EPA*, Case No. 11-cv-293 (N.D. Cal. filed Jan. 20, 2011) (challenge to product registrations containing 35 separate active ingredients); *Ctr. for Env'tl. Health v. Wheeler*, Case No. 18-cv-3197 (N.D. Cal. filed May 30, 2018) (challenge to delay of ESA consultation for malathion); *Nat'l Family Farm Coal. v. U.S. Env'tl. Prot. Agency*, Case No. 17-cv-70810 (9th Cir. filed Mar. 21, 2017) (challenge to Enlist Duo registration, containing 2,4-D and glyphosate, for new uses on genetically engineered crops); *Nat'l Family Farm Coal. v. U.S. Env'tl. Prot. Agency*, Case No. 19-cv-70115 (9th Cir. filed Jan. 11, 2019) (challenge to XtendiMax and other registrations containing dicamba, for new uses on genetically engineered crops); *Ctr. for Food Safety v. Wheeler*, 19-cv-72109 (9th Cir. filed Aug. 20, 2019) (challenge to registration for new uses of sulfoxaflor).

⁶ See, e.g., *Ctr. for Biological Diversity, NO REFUGE: How America's National Wildlife Refuges are Needlessly Sprayed with Nearly Half a Million Pounds of Pesticides Each Year* (2018), available at https://www.biologicaldiversity.org/campaigns/pesticides_reduction/pdfs/No-Refuge.pdf; *Ctr. for Biological Diversity, Pollinators in Peril* (2017), available at https://www.biologicaldiversity.org/campaigns/native_pollinators/pdfs/Pollinators_in_Peril.pdf; *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, Case No. 17-cv-468 (D. Or. filed Mar. 23, 2017).

CBD would not have had to expend prior to Defendants taking the challenged action. By reversing the phase-out of neonicotinoid pesticides and GE crops in the Refuge System, and thereby programmatically reintroducing those practices, the 2018 Decision therefore frustrates CBD's mission of stopping toxic pesticides and GE crops from entering refuges and harming wildlife, contaminating their habitats, and damaging their food sources. It also impairs CBD's organizational interests by necessitating that it divert significant financial, personnel, and other resources to monitor for, assess, report to the public, including the organization's members, and respond to the impacts of Defendants' action on native species and their habitats on refuge lands.

17. Plaintiff CENTER FOR FOOD SAFETY (CFS) brings this action on behalf of itself and its members. CFS is a national public interest, nonprofit, membership organization founded in 1997, representing over 970,000 members nationwide. CFS has offices in San Francisco, CA; Portland, OR; and Washington, DC, with members from every state in the country. CFS and its members are being, and will be, adversely affected by FWS's actions.

18. CFS's fundamental mission is to protect food, farmers, and the environment from the adverse impacts of industrial agriculture. To this end, CFS has long been a nonprofit leader with flagship programs on improving the oversight and addressing the adverse impacts of both GE crops and neonicotinoid pesticides.

19. To achieve its goals, CFS disseminates to government agencies, members of Congress, and the general public a wide array of educational and informational materials. These materials include news articles, policy reports, media statements, member action alerts and updates, and issue white papers and fact sheets. CFS's action alerts generate public involvement, education, and engagement with governmental officials on issues related to sustainable agriculture. Collectively, the dissemination of this material has made CFS an information

clearinghouse for public involvement and governmental oversight of issues related to agriculture impacts on the environment.

20. Since CFS's inception in 1997, CFS has had a flagship program on addressing the harms of pesticide use. Since the early 2000s, CFS has worked to protect wildlife refuges from the harms of industrial agriculture, including pesticide use on national wildlife refuges.⁷ CFS and its members are concerned about and injured by the harms to species and their habitat that results from the use of harmful toxic pesticides for agricultural purposes. This concern is particularly relevant to the Refuge System, which is essential for protecting wildlife and the environment.

21. When necessary, CFS also engages in public interest litigation to address the impacts of industrial agriculture, including pesticides and GE crops, on the environment, its members, and the public interest. Specifically several of CFS's past cases have involved protecting wildlife and the environment in the Refuge System and addressing the legal and factual topics related to this case, specifically the adverse impacts of allowing environmentally damaging agricultural practices on national wildlife refuge lands.⁸

⁷ See, e.g., Ctr. for Biological Diversity, Ctr. for Food Safety, & Tennessee Riverkeeper, *2018 Wheeler Pesticide Petition*; Ctr. for Food Safety, Ctr. for Biological Diversity, Public Employees for Environmental Responsibility, & Beyond Pesticides, *2014 Refuge Petition*. See also Ctr. for Food Safety, *CFS Statement on the Trump Administration's Elimination of the National Wildlife Refuge Prohibition on Genetically Engineered Crops and Neonicotinoid Pesticides* (Aug. 6, 2018), available at <https://www.centerforfoodsafety.org/press-releases/5394/center-for-food-safety-statement-on-the-trump-administrations-elimination-of-the-national-wildlife-refuge-prohibition-on-genetically-engineered-crops-and-neonicotinoid-pesticides>; Ctr. for Food Safety, *Fish and Wildlife Service Agrees to Phase-Out Genetically Engineered Crops and Ban Bee-Killing Pesticides on National Refuges* (July 31, 2014), available at <https://www.centerforfoodsafety.org/press-releases/3342/fish-and-wildlife-service-agrees-to-phase-out-genetically-engineered-crops-and-ban-bee-killing-pesticides-on-national-refuges>.

⁸ See *Del. Audubon Soc'y, Inc. v. Sec'y of the U.S. Dep't of Interior*, 612 F. Supp. 2d 442 (D. Del. 2009); *Delaware Audubon Soc'y v. Salazar*, No. 1:10-cv-00162 (D. Del. 2010); *Ctr. for Food Safety v. Salazar*, 900 F. Supp. 2d 1 (D.D.C. 2012); *Ctr. for Food Safety v. Salazar*, 898 F. Supp. 2d 130 (D.D.C. 2012).

22. CFS further advances its programs and campaigns to mitigate the impact of GE agricultural products on human health and the environment, and oppose the use of toxic chemicals and pesticides in agricultural practices in the Refuge System—efforts that have required additional organizational resources to be diverted as a result of the challenged 2018 action. For example, to increase transparency around Defendants’ implementation of the 2018 Decision, CFS has had to spend resources filing and pursuing two separate public records requests under FOIA. CFS expects that it will need to file additional FOIA requests in the future to acquire updated information regarding the use of pesticides on refuges—information that is not available on any public website or readily publicly accessible medium.

23. By reversing the phase-out of GE crops and neonicotinoid pesticides in the Refuge System, and thereby programmatically reintroducing those practices, Defendants’ 2018 action frustrates and undermines CFS’s mission of ending the use of GE crops and neonicotinoid pesticides on national wildlife refuge lands. Moreover, Defendants’ 2018 Decision has further impaired CFS’s overarching goals because of the inevitable harm the re-introduction of GE crops and neonicotinoid pesticides will have to the environmental health, sustainable agricultural practices, and endangered and threatened species and their critical habitat on and surrounding the Refuge System. This action and its harmful effects on the environment, human health, sustainable agriculture, and native species and their habitats harms CFS’s organizational interests, including by diverting financial, personnel, and other resources to monitor the impacts of Defendants’ action on refuge lands.

24. Plaintiffs and their members further use national wildlife refuges for recreational, scientific, and aesthetic purposes and enjoy experiencing the wildlife—including threatened and endangered species—found on refuges, uses that are impaired as a result of the 2018 Decision.

Plaintiffs have members, for example, who reside near, visit, or otherwise use and enjoy refuges affected by this action, enjoy the threatened and endangered species that can be found on these refuges, and are concerned about the negative impact to that use and enjoyment as a result of the challenged action. Plaintiffs' members use and enjoyment of these refuges and the species that can be found on them manifests in a variety of ways, including through recreational uses such as hiking, photography, and wildlife viewing, and education, aesthetic, and spiritual enjoyment.

25. Using neonicotinoid pesticides and crops genetically engineered to be resistant to pesticides (thereby leading to the increased use of pesticides on crops genetically engineered to resist them, like glyphosate and dicamba) on refuges adversely impacts wildlife and their habitats in the very places that have been set aside to provide those species sanctuary. Because Plaintiffs and their members derive scientific, recreational, aesthetic, and conservation benefits and enjoyment from national wildlife refuges and the wildlife—including threatened and endangered species—that utilize these refuges, their interests are harmed by actions that threaten the health and welfare of those species and special places. The past, present, and future enjoyment and use of these places by Plaintiffs and their members has been, is being, and will continue to be irreparably harmed by Defendants' disregard for their statutory duties and procedural responsibilities in taking the challenged action.

26. Plaintiffs' members who use and recreate on and around refuges are also at a greater risk of suffering from adverse health effects from pesticide exposure because of the 2018 Decision. Additionally, cultivation of GE crops compromises members' enjoyment of refuges, because the crops pose risks to wildlife and injure aesthetic and recreational interests of those who seek to maintain biodiversity and are opposed to altering the DNA of plants.

27. CFS' members also grow organic seed crops and consume products made with non-GE materials and without pesticides. CFS's members regularly eat organic foods and desire foods that are free of GE material and chemical pesticides. The proliferation of GE crops on refuge lands risks contamination of non-GE crops nearby, and reduction of the supply of food containing ingredients that are not contaminated with GE material. Defendants' actions in facilitating GE crops and neonicotinoid pesticides in refuges will make it more difficult for CFS's members to produce, sell, and eat foods not contaminated by pesticides and GE material.

28. Plaintiffs and their members are concerned with the effective management of national wildlife refuges, the genuine achievement of the purposes of these refuges and the Refuge System, and the lawful implementation of NEPA and the ESA. Plaintiffs and their members have substantive, procedural, and informational interests in ensuring that Defendants comply with all applicable federal statutes and regulations—including NEPA, the ESA, and the Refuge Act—in adopting final agency actions such as the one at issue before this Court. If made available, Plaintiffs would have participated in and gleaned information from any public process afforded under any of these statutes, including but not limited to NEPA and the APA. Accordingly, Plaintiffs and their members have been injured because they were denied that right of public input and access to information and procedural processes as required by law. Plaintiffs' substantive, procedural, and informational interests in being fully informed about the actual and potential effects of reintroducing neonicotinoid pesticide and GE crops into refuges as a result of the challenged action have further been harmed.

29. Plaintiffs' and their members' interests have been harmed by the Defendants' decision to take the challenged action without first conducting the requisite programmatic-level impact analysis under NEPA and consultation under the ESA. Defendants' conduct has injured

Plaintiffs' organizational interest in combating and mitigating the harmful impacts of industrial agriculture to wildlife and refuge resources, and in protecting the public, wildlife, and the overall environment against the harmful effects of these practices. If Defendants had taken action in accordance with the procedural and substantive rights afforded to Plaintiffs under NEPA and the ESA, the concrete interests of Plaintiffs and their members could have been protected.

30. All of these injuries to Conservation Organizations and their members are caused by Defendants' unlawful promulgation and finalization of the 2018 Decision, and would be remedied through a Court order vacating the action and remanding it for further consideration pending full compliance with federal law. These injuries are actual and concrete, are being presently suffered by Plaintiffs and their members, and will continue unless relief is granted by this Court.

31. Defendant DAVID BERNHARDT is the Secretary of the United States Department of the Interior and is being sued in his official capacity. As the Secretary, he is charged with the supervision and management of all decisions, operations, and activities of DOI and its divisions.

32. Defendant UNITED STATES DEPARTMENT OF THE INTERIOR is an executive agency of the United States responsible of the oversight of the Refuge System and other public lands.

33. Defendant MARGARET EVERSON is the Principal Deputy Director of the United States Fish and Wildlife Service Exercising the Authority of the Director and is being sued in her official capacity. She is legally responsible for overseeing the activities of the FWS.

34. Defendant UNITED STATES FISH AND WILDLIFE SERVICE is an agency within the U.S. Department of the Interior and is responsible for the management of the Refuge

System and the national wildlife refuges that comprise it. FWS's mission is to conserve, protect, and enhance fish, wildlife, and their habitats for the continuing benefit of the American people.

IV. LEGAL BACKGROUND

A. National Wildlife Refuge System Administration Act and National Wildlife Refuge System Improvement Act

35. In 1966, Congress passed the National Wildlife Refuge System Administration Act, as amended by the National Wildlife Refuge System Improvement Act, which governs the management of all refuges and delegates management authority to the Secretary of DOI through the FWS. 16 U.S.C. § 668dd(a)(1).

36. The Refuge Act establishes that “[t]he mission of the Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” *Id.* § 668dd(a)(2). In this context, “conservation” and “management” are defined as “to sustain and, where appropriate, restore and enhance, healthy populations of fish, wildlife, and plants” in accordance with Federal laws. *Id.* § 668ee(4).

37. To achieve the purposes of the Refuge Act, the Secretary of DOI is directed to “provide for the conservation of fish, wildlife, and plants, and their habitats within the System” *Id.* § 668dd(a)(4)(A). In doing so, the Secretary *must* “ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans” and “ensure that the mission of the System . . . and the purposes of each refuge are carried out” *Id.* § 668dd(a)(4)(B), (D). The Refuge Act defines “purposes of the refuge” as the “purposes specified in or derived from the law, proclamation,

executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit.”

Id. § 668ee(10).

38. The Refuge Act also includes a substantive obligation to “assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the System and the purposes of each refuge” *Id.* § 668dd(a)(4)(F).

39. As Congress further recognized in passing the Refuge Act:

National Wildlife Refuges are often important components of the ecosystems in which they are located and contribute significantly to the conservation of those ecosystems. Nonetheless, they cannot fulfill the mission set forth in this [Act] unless they are consistently directed and managed as a national system. This includes managing a series of refuges in a coordinated manner to meet the life-cycle needs of migrating species, providing habitat for threatened or endangered species, or representing the various habitats that provide for the conservation of the Nation’s wildlife resources.

H.R. Rep. No. 105-106, at 8 (1997), *as reprinted in* 1997 U.S.C.C.A.N. 1798-5, 1798-13.

40. FWS has developed agency guidance to implement the biological integrity, diversity, and environmental health objectives established in the Refuge Act. Pursuant to that guidance, appropriately titled the Policy on Biological Integrity, Diversity, and Environmental Health (BIDEH policy), FWS provides that “[w]e do not use genetically modified organisms in refuge management unless we determine their use is essential to accomplishing refuge purpose(s) and the Regional Chief . . . approves the use.” U.S. Fish & Wildlife Serv., 601 FW 3, § 3.15(C).

41. Under the Refuge Act, FWS may “permit the use of any area . . . for any purpose . . . whenever [it] determines that such uses are compatible with the major purposes” of a refuge. 16 U.S.C. § 668dd(d)(1)(A). However, FWS “shall not initiate or permit a new use of a refuge or

expand, renew, or extend an existing use of a refuge, unless [it] has determined that the use is a compatible use and that the use is not inconsistent with public safety.” *Id.* § 668dd(d)(3)(A)(i).

42. A “compatible use” is “a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge.” *Id.* § 668ee(1); 50 C.F.R. § 25.12. “Sound professional judgment” must be “consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of [the Refuge] Act and other applicable laws.” 16 U.S.C. § 668ee(3).

43. To be compatible, a use must further be able to contribute to the maintenance of biological integrity, diversity, and environmental health. *See generally* U.S. Fish & Wildlife Serv., 603 FW 2. Uses that are reasonably anticipated “to reduce the quality or quantity or fragment habitats on a national wildlife refuge will not be compatible.” U.S. Fish & Wildlife Serv., 603 FW 2, § 2.5(A).

44. When a use is incompatible, FWS should “expeditiously terminate or modify the use to make it compatible.” 50 C.F.R. § 26.41(d).

45. If the use is a “public or private economic use of the natural resources of any national wildlife refuge,” such as a farming use, FWS may only authorize the use where it “determine[s] that the use *contributes* to the achievement of the national wildlife refuge purposes or the National Wildlife Refuge System mission.” *Id.* § 29.1 (emphasis added).

46. In determining whether a use is compatible, FWS must consider the anticipated impacts of the use on the refuge’s purpose and on the mission of the Refuge System. *Id.* § 26.41(a)(8). Impacts that FWS must be consider include direct impacts, “indirect impacts

associated with the use,” and cumulative impacts including “uses of adjacent lands or waters that may exacerbate the effects of a refuge use.” U.S. Fish & Wildlife Serv., 603 FW 2 §§ 2.11(B)(3), 2.12(A)(8)(c).

47. Even if a use is compatible, FWS may decline to allow it. U.S. Fish & Wildlife Serv., 603 FW 1 § 1.8; U.S. Fish & Wildlife Serv., 603 FW 2 §§ 2.11(G), 2.15.

B. Endangered Species Act

48. Congress passed the Endangered Species Act in 1973 in response to the pending extinction crisis to provide a “means whereby the ecosystems upon which endangered species and threatened species depend may be conserved . . . [and] to provide a program for the conservation of such endangered species and threatened species” 16 U.S.C. § 1531(b). Congress defined “conservation” under the ESA as “the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary,” due to recovery (or extinction). *Id.* § 1532(3).

49. The ESA establishes as “the policy of Congress” that “all Federal departments and agencies [including DOI and FWS] shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this [Act].” *Id.* § 1531(c)(1).

50. The ESA vests primary responsibility for administering and enforcing the statute with the Secretaries of Commerce and Interior, which subsequently delegated that authority to FWS and the National Marine Fisheries Service (NMFS).

51. The term “endangered species” is defined as “any species which is in danger of extinction throughout all or a significant portion of its range.” *Id.* § 1532(6). A threatened species

is “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” *Id.* § 1532(20).

52. Species are identified as “threatened” or “endangered” under the ESA using a number of enumerated statutory factors, *id.* § 1533(a)(1), and the “best scientific and commercial data available,” *id.* § 1533(b).

53. At the same time as a species is listed as threatened or endangered, FWS or NMFS must designate and protect critical habitat for the species, subject to certain exceptions. *Id.* § 1533(a)(3), (b)(2).

54. In addition to preventing direct risks to species, supporting the safety and security of species’ habitat is critical to its persistence and recovery. As Congress expressly recognized in passing the ESA:

Man can threaten the existence of species of plants and animals in any of a number of ways The most significant of those has proven also to be the most difficult to control: the destruction of critical habitat [T]here are certain areas which are critical which can and should be set aside. It is the intent and purpose of this legislation to see that our ability to do so, at least within this country, is maintained.

H.R. Rep. No. 412, 93d Cong., 1st Sess., at 5 (1973); *see also* H.R. Rep. No. 887, 94th Cong., 2d Sess., at 3 (1976).

55. To support the Act’s clear and unambiguous objectives of protecting and recovering imperiled species and populations, when a species has been listed as threatened or endangered under the ESA, all federal agencies—including FWS—must ensure that their programs and activities are in compliance with the ESA. Indeed, the ESA explicitly elevates species protection over the primary missions of federal agencies. 16 U.S.C. § 1536(a).

56. To this end, Section 7 of the ESA requires that “each federal agency shall, in consultation with and with the assistance of the [FWS], insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the [FWS] . . . to be critical.” *Id.* § 1536(a)(2); 50 C.F.R. § 402.14(a).

57. Thus, if an activity authorized, funded, or carried out by a federal agency may affect a listed species or its designated critical habitat, that activity cannot go forward until consultation (a biological review of the proposal by FWS and/or NMFS) ensures that it will not “jeopardize” the species or result in the “destruction or adverse modification” of designated critical habitat. *Id.* Agency “action” is broadly defined in the ESA’s implementing regulations to include “all activities . . . of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies.” 50 C.F.R. § 402.02.

58. Agency actions subject to consultation include actions taken by FWS itself. *See* FWS and NMFS, Endangered Species Act Consultation Handbook, 1-5 to 1-6, App. E (1998) (describing Intra-Service Section 7 Consultation requirements), *available at* https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf.

59. 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, the ESA establishes an interagency consultation process in which federal agencies must consult with FWS 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.

60. An agency must initiate consultation under Section 7 whenever its action “may affect” a listed species or critical habitat. *Id.* § 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. *Id.* § 402.02 (definition of “effects of the action”).

61. An agency is required to review its actions “at the earliest possible time” to determine whether the action may affect listed species or critical habitat. *Id.* § 402.14(a).

62. 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.” *Id.* § 402.02 (definition of “action”).

63. Agencies must reinitiate consultation on agency actions over which the federal agency retains, or is authorized to exercise, discretionary involvement or control “[i]f 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; [i]f 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 [i]f a new species is listed . . . that may be affected by the identified action.” *Id.* § 402.16 (reinitiation of consultation).

64. 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.

65. To initiate consultation, the action agency (here, FWS) must assess the impacts of the action on listed species and their habitat and provide all relevant information about such impacts. 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 FWS concurs in writing with that determination, the agency does not have to undergo formal consultation. *Id.* § 402.13.

66. If FWS 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).

67. The end product of formal consultation is a biological opinion in which FWS determines whether the agency action will jeopardize the survival or recovery of listed species or will destroy or adversely modify the species’ critical habitat. 16 U.S.C. § 1536(b). To make this determination, FWS must review all relevant information and provide a detailed evaluation of the action’s effects on the listed species. *Id.* § 1536(b)(3)(A); 50 C.F.R. § 402.14(g)-(h). FWS 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 FWS 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)(2). FWS 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).

68. 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. 16 U.S.C. § 1538(a)(1)(B). "Take" is defined to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such conduct." *Id.* § 1532(19). FWS 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.

69. Compliance with the procedural provisions of the ESA—identifying and mitigating the likely effects of the action through the consultation process—is integral to compliance with the substantive requirements of the Act. Today, the ESA protects more than 1,600 plant and animal species and millions of acres have been designated as critical habitat to allow for species' survival and recovery. Since its enactment, the ESA has prevented the extinction of ninety-nine percent of the species under its protection, a percentage that can only be maintained if agencies comply with the Act's mandatory consultation requirements.

C. National Environmental Policy Act

70. NEPA is "our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). Its purpose is to "encourage productive and enjoyable harmony between man and

his environment” and to “promote efforts which will prevent or eliminate damage to the environment” 42 U.S.C. § 4321.

71. To this end, NEPA’s core function is to “help public officials make decisions that are based on understanding of environmental consequences,” 40 C.F.R. § 1500.1(c), by requiring federal agencies to take a “hard look” at potential environmental consequences and environmentally enhancing alternatives “as part of the agency’s process of deciding whether to pursue a particular agency action.” *Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 100 (1983); *see also* 42 U.S.C. § 4332(1) (“[T]he policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in [NEPA].”).

72. Agencies must “use all practicable means and measures . . . in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.” 42 U.S.C. § 4331(a).

73. NEPA requires that an Environmental Impact Statement (EIS) be prepared for every “major Federal actions significantly affecting the quality of the human environment.” *Id.* § 4332(C). In the EIS, an agency must adequately describe the affected environment, and disclose the environmental consequences of the proposed action and each of the alternatives to the proposed action. 40 C.F.R. § 1502.1. In so doing, the agency must consider three types of environmental effects: those that are direct, indirect, and cumulative. *Id.* § 1508.25(c). Direct effects “are caused by the action and occur at the same time and place.” *Id.* § 1508.8(a). Indirect effects “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” *Id.* § 1508.8(b). A cumulative impact results from the incremental

impact of the proposed action “when added to other past, present, and reasonably foreseeable future actions regardless of what agency . . . undertakes such other actions.” *Id.* § 1508.7.

“Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” *Id.* Under NEPA, “effects” and “impacts” are synonymous terms that include “ecological (*such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems*), aesthetic, historic, cultural, economic, social, or health . . .” *Id.* § 1508.8 (emphasis added); *see also id.* § 1508.14.

74. The agency’s statements “shall be supported by evidence that the agency has made the necessary environmental analyses.” *Id.* § 1502.1.

75. “Major federal action[s]” under NEPA include “actions with effects that may be major and which are potentially subject to Federal control and responsibility. Major reinforces but does not have a meaning independent of significantly.” *Id.* § 1508.18. Actions include “new or revised agency rules, regulations, plans, policies, or procedures” and typically fall under specific categories including “[a]doption of official policy, such as rules, regulations, and interpretations adopted pursuant to the Administrative Procedure Act.” *Id.* § 1508.18(a), (b)(1).

76. In assessing the scope of the agency’s action, NEPA demands “programmatic” EIS reviews “for broad Federal actions such as the adoption of new agency programs or regulations.” *Id.* § 1502.4(b); *see also id.* §§ 1508.18(b)(4) (definition of major federal action includes “[a]doption of programs, such as a group of concerted actions to implement a specific policy or plan”); 1508.23.

77. A programmatic EIS makes certain that the government’s NEPA review is “relevant to policy and [] timed to coincide with meaningful points in agency planning and decisionmaking,” and “shall be prepared on such programs and shall be available before the

program has reached a stage of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives.” *Id.* § 1502.4.

78. Determining “significance” in the context of NEPA requires the agency to look at the effects of its actions as a whole, including in terms of their effects on “society as a whole (human, national), the affected region, the affected interests, and the locality.” *Id.* § 1508.27(a). It also requires the agency to consider the intensity of the impact by evaluating factors enumerated at 40 C.F.R. § 1508.27(b).

79. The agency cannot avoid significance by dividing a proposed project into component parts. *Id.* § 1508.27(b)(7) (“Significance cannot be avoided by . . . breaking [the action] down into small component parts.”).

80. An agency must make high quality information available to the public *before* an agency makes its decision and takes action. *Id.* § 1500.1(b). Accurate scientific analysis and public scrutiny are essential to implementing NEPA. *Id.* (“NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.”). Agencies shall insure the professional and scientific integrity of the discussions and analyses in the EIS. *Id.* § 1502.24.

81. Under certain circumstances, a federal agency *may* prepare an Environmental Assessment (EA) in order to evaluate whether an EIS is necessary. *Id.* §§ 1501.3; 1508.9. An EA must include “sufficient evidence and analysis for determining whether to prepare” an EIS, and must determine if an EIS is necessary or, if not, issue a Finding of No Significant Impact

(FONSI). *Id.* §§ 1508.9; 1501.4. The agency must involve the public in EA preparation to the extent practicable. *Id.* § 1501.4(b).

82. The only circumstances under which either an EIS or EA need not be prepared in connection with a particular federal agency action is when the action is “categorically excluded” from NEPA review; however, a categorical exclusion (CE) may be invoked only for a “kind of action that has no significant individual or cumulative effect on the quality of the human environment.” 43 C.F.R. § 46.205; *see also id.* § 46.210(i).

83. Before FWS can invoke a CE, it must evaluate whether the action meets any of the extraordinary circumstances under DOI’s NEPA implementing procedures. *See id.* §§ 46.210(d); 46.205(c)(1); *see also id.* § 46.215(a), (b), (c), (d), (e), (g) (defining “extraordinary circumstances” precluding invocation of a CE).

84. NEPA requires that an agency incorporate its environmental analysis into its decisionmaking process. 40 C.F.R. §§ 1500.1(c) (“NEPA’s purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action.”); 1502.1 (stating that the “primary purpose” of an EIS is to “serve as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government.”).

D. Administrative Procedure Act

85. The APA grants a right of judicial review to “[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action” 5 U.S.C. § 702.

86. The APA defines a “rule” as “the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy” *Id.* § 551(4).

87. Under the APA, a court must “hold unlawful and set aside agency action . . . found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” *Id.* § 706(2)(A). An agency action is arbitrary and capricious if “the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

88. Under the APA, a reviewing court must “hold unlawful and set aside” any agency action taken that is “in excess of statutory jurisdiction, authority, or limitations, or short of statutory right.” 5 U.S.C. § 706(2)(C). A reviewing court shall further “compel agency action unlawfully withheld or unreasonably delayed” *Id.* § 706(1).

89. Finally, under the APA, a reviewing court shall “hold unlawful and set aside” any agency action that was promulgated “without observance of procedure required by law.” *Id.* § 706(2)(D).

V. FACTUAL BACKGROUND

A. Farming as a “Use” in National Wildlife Refuges

90. Farming on national wildlife refuges is a discretionary economic use.

91. The Refuge Act dictates that three main questions should be considered in deciding which practices may be allowed on refuges: (1) whether the proposed activity is

consistent with the purpose of that refuge, (2) the mission of the Refuge System, and (3) public safety. 16 U.S.C § 668dd(a)(3)(B); *see also id.* §§ 668dd(d)(1)(A); 668ee(2).

92. The Act further identifies “six primary public uses” for refuges; these wildlife dependent recreational uses are wildlife observation and photography, fishing, hunting, environmental education and interpretation. *Id.*

93. Other uses, such as farming (often termed “cooperative farming”), are not considered to be a priority uses for refuges, but have been permitted when found to be “compatible” with, and not “materially interfere with or detract from,” refuge purposes and the mission of the Refuge System. *Id.* §§ 668ee(1); 668dd(a)(3)(C). When uses, such as farming, are for “public or private economic use,” like the sale of crops for compensation, the standard for compatibility heightened such that FWS can only allow the use where it “determine[s] that the use *contributes to the achievement of* the national wildlife refuge purposes or the National Wildlife Refuge System mission.” 50 C.F.R. §29.1 (emphasis added).

94. Under this test, farming uses are typically allowed on refuges to enable the refuge to meet habitat management objectives. Farming activities “are [considered] permissible habitat management practices only when prescribed in plans to meet wildlife or habitat management objectives, and only when more natural methods, such as fire or grazing by native herbivores, cannot meet refuge goals and objectives.” U.S. Fish & Wildlife Serv., 601 FW 3, § 3.15(B).

95. In line with those objectives, farming is ostensibly allowed for purposes such as helping to prepare seed beds for native habitat and grasslands, and to provide food for migratory birds and other wildlife.

96. Crops commonly grown on refuges include row-crops such as corn, soybean, wheat, and sorghum.

B. *The Science Behind Neonicotinoid Pesticides and GE Crops*

1. *Neonicotinoid Pesticides*

97. Neonicotinoid pesticides (also referred to as neonics) are neurotoxic pesticides that are known to cause adverse impacts on a wide range of taxonomic groups, especially bird, aquatic insect, and pollinator species.

98. In invertebrates such as butterflies and bees, neonics function by disrupting normal central nervous system function, resulting in nervous system overstimulation and eventually paralysis and death. Vertebrates, such as birds, can experience similar toxicity issues, resulting in a wide variety of negative effects like decreases in fat stores and body mass, reproductive effects, and failure to orient correctly during migration.

99. Studies show that exposure to neonics can make bees more vulnerable to common (but sometimes deadly) bee pathogens and parasites. Studies have additionally found that small doses of neonicotinoid pesticides negatively affected the ability of songbirds to navigate.

100. The main pathways for exposure to neonics are residues in pollen and nectar, dust from treated seeds and soils, planter exhaust, untreated but contaminated non-crop plants adjacent to treated fields, guttation droplets on both treated and untreated but contaminated plants, surface water contamination, and residues from foliar uses.

101. All neonicotinoids are systemic, meaning the chemicals can be taken up through the plant roots, stems, and leaves and translocate throughout the plant. As a result, once one part of a plant is exposed to a neonicotinoid, the entire plant can contain residues of the chemical and can cause potential toxicity to animals and birds that feed on it.

102. Once treated with a neonicotinoid, therefore, a plant can become highly toxic to non-target invertebrates, including pollinators such as honey and bubble bees. In addition to the

obvious effects of lethal doses of neonics, sub-lethal exposures can cause significant impacts to bees, including reduced learning, foraging ability, homing ability, and the ability to fight off pathogen infection.

103. In addition to being sprayed on plants or soils, neonics can also be used as a seed coating. Seeds coated in neonics pose a direct risk to seed-eating birds because, after planting, the seeds that remain above soil or just below the surface are available as forage. In addition to the seed treatment uses, neonics sprayed directly on crops or on soil can have direct effects on birds that eat grasses, broadleaf plants, or insects that have been sprayed. As neonics are considered very highly toxic to many species of invertebrates, any bird or mammal that feeds on those invertebrates could see its prey base decline and subsequently not receive the nourishment it needs to thrive.

104. As an example, in conducting an assessment of the risks posed by neonics to different taxa, the U.S. Environmental Protection Agency (EPA) found the potential for high risk to listed species from the labelled uses of these pesticides. Under that assessment, small and medium insectivorous birds exceeded EPA's level of concern for acute harm when feeding on insects that had been exposed to imidacloprid after use on soybean and potato crops. Specifically, the EPA found its risk of concern exceeded if thirty-one percent of the bird's diet consisted of insects that have been exposed to imidacloprid applied to soybean crops. The agency also found that if twenty-five percent of a bird's diet consisted of exposed insects after potato plants had been sprayed with imidacloprid, the risk of concern for acute harm would also be exceeded.

105. Similarly, recent studies from France show that seventy percent of bird mortality incidents where imidacloprid residues were detected were due to poisoning by imidacloprid-

treated seeds. A single imidacloprid-treated corn seed can be lethal to a medium-sized bird, and eating as little as 1/10th of a treated seed per day is sufficient to cause negative reproductive effects. An analysis by the EPA found that all seed-eating birds are at direct risk of harm by eating imidacloprid-treated soybean, wheat, corn, and sorghum seeds—in some scenarios exceeding the EPA level of concern by nearly two-hundredfold. Additionally the agency found that if neonic-treated wheat and sorghum seeds comprised just one percent of a bird's diet, it would be sufficient to cause mortality.

106. Neonics are also persistent in the environment with half-lives that can range from many months to more than three years. This persistence and high water solubility make the pesticides highly susceptible to runoff into water bodies.

107. On an acute exposure basis, the EPA has designated the neonicotinoids imidacloprid and thiamethoxam as very highly toxic to aquatic invertebrates. EPA's risk level of concern was exceeded for freshwater and saltwater invertebrates for nearly every single foliar and soil treatment use that was modelled. Any species reliant on aquatic invertebrates for food could also be at risk of indirect effects from use of these pesticides.

108. In large part because of the harm neonics cause to pollinators and other species, the European Union has banned for outdoor use many common neonicotinoid pesticides, including clothianidin, imidacloprid, and thiamethoxam. Europe's decision came just as Canada's pesticide regulatory agency recommended banning imidacloprid, clothianidin, and thiamethoxam based on demonstrated harms to aquatic ecosystems. California also announced that it would temporarily no longer consider any new uses of neonicotinoid pesticides in the state in an effort to protect terrestrial invertebrates.

2. Genetically Engineered Crops

109. GE crops are essentially a pesticide delivery system technology, meaning that GE crops were overwhelmingly developed for the explicit purpose of providing a crop in which large amounts of a pesticide—the pesticide type depending on what pesticide the crop is engineered to resist—could be dumped in otherwise lethal amounts on a crop without killing the plant.

110. Indeed, over five out of every six acres of GE crops worldwide (84%) have been developed to be herbicide-resistant. In 2018 in the U.S. alone, 92 percent of corn, 94 percent of cotton, and 94 percent of soybeans planted were GE, herbicide-resistant varieties.

111. The way the technology standardly works is that a pesticide and its resistant seeds are sold together as a “cropping system.” Under this system, the crops’ resistance to a pesticide allows for increased pesticide spraying at increased intervals during the farming season. As a result, these pesticide-promoting GE crop systems have dramatically increased the overall use of herbicides in U.S. agriculture. For example, in the sixteen years from 1996 to 2011, an extra 527 million pounds of herbicides are estimated to have been sprayed in U.S. agriculture because of GE crops.

112. The majority of all GE crops sold have been a “Roundup Ready” variety. Roundup Ready GE crops are crops that are resistant to the pesticide glyphosate (the active ingredient in Roundup pesticide). Following the proliferation of Roundup Ready GE crop systems, glyphosate has become the most used pesticide in history, with approximately 300 million pounds applied in U.S. agriculture in 2016 alone.

113. The substantial use of glyphosate with Roundup Ready crops has contributed to an alarming impact on pollinator insect populations, including a decline in monarch butterfly populations. Monarch caterpillars feed only on milkweed plants, once common in late-season

corn and soybeans fields. Glyphosate has nearly eradicated milkweed from Midwest cropland, the monarchs' major breeding range, depriving monarch caterpillars of their chief food source. As a result, FWS has concluded that ESA protection may be warranted for monarchs because "substantial scientific or commercial information" potentially warranting such a listing exists.⁹

114. Glyphosate is also a leading culprit in herbicidal drift injury to sensitive crops, and also harms wild plants that many animals depend upon for food and/or habitat. Glyphosate is frequently detected in the air, rain, and water bodies of the Midwest and South.

115. The World Health Organization's International Agency for Research on Cancer classified glyphosate as a likely carcinogen in 2015, based in part on epidemiological studies linking glyphosate exposure to non-Hodgkin lymphoma.

116. In 2017, the State of California designated glyphosate as a human carcinogen under California Proposition 65.

117. In 2019, the Centers for Disease Control's Agency for Toxic Substances and Disease Registry (ATSDR) identified a link between glyphosate exposure and non-Hodgkin lymphoma. In that same report, ATSDR also identified associations between glyphosate exposure and reproductive toxicity, as well as with gastrointestinal symptoms such as nausea and abdominal pain.

118. Earlier this year, a California state jury issued a verdict of \$2 billion in favor of a married couple, plaintiffs Alberta and Alva Pilliod, who in a lawsuit against the Monsanto Company attributed their cancers to the use of Monsanto's Roundup Ready and other glyphosate-based herbicides.

⁹ 79 Fed. Reg. 78775-78778 (Dec. 31, 2014).

119. It is also well recognized that the use of the agricultural pesticides 2,4-D and dicamba present a significant risk to species, water quality, and the environment.

120. The use of 2,4-D poses potential risks of direct, indirect, and cumulative effects to listed and non-listed terrestrial plants, birds, reptiles, terrestrial-phase amphibians, mammals, terrestrial invertebrates, fish aquatic invertebrates, and aquatic plants. For example, the use of 2,4-D on the Wheeler National Wildlife Refuge in Alabama could cause a direct (as well as indirect and cumulative) effect on arthropod-reliant terrestrial bird species such as the whooping crane, as well as on birds that rely on 2,4-D treated plants for forage. Additionally, the potential of chemical contamination from 2,4-D use on the karst formation on the Key Cave National Wildlife Refuge, which is essential to the critically endangered Alabama cavefish, also poses threats to the health and continuing reproductive capacity of the cavefish and other aquatic species. 2,4-D is also volatile and highly prone to drift, which heightens its risk of impacting non-target plants and other resources both on and off of refuges, including insects and wildlife.

121. Dicamba is a broad-spectrum systemic herbicide that mimics the plant hormone auxin, causing uncontrolled cell division and growth and, ultimately death or injury for broadleaf plants. Small birds and mammals are likely to be directly impacted by dicamba if they forage on plants or insects in dicamba-treated fields. According to the EPA, dicamba additionally has the potential for causing risks to endangered birds, mammals, and non-target plants, with mammals potentially at risk for developmental and reproductive effects and effects on foraging behavior when chronically exposed to dicamba. Dicamba is also volatile and highly prone to drift, a trait that has given it a reputation as the most controversial agrochemical product launched in the past decade. In the 2017 growing season, more than three million acres of soybean fields were

reportedly damaged by drift or volatilization of ground-applied dicamba—four percent of the total soybean crop.

122. In addition, over-reliance on pesticides like glyphosate in industrial row-crop agriculture has caused an epidemic of pesticide-resistant “superweeds,” which are weeds that have evolved resistance to that pesticide. In the case of glyphosate, for example, overuse has contributed to superweed presence intensifying on seventy million acres in the United States, costing U.S. farmers approximately \$1 billion in damages to crops. The “solution” commonly offered by the companies that make these GE crops is to create a “next-generation” of GE crops. (“Generations” in this sense are comparable to the more standard technological “generations” that consumers are exposed to with items such as cellular phones like the Apple iPhone, which is currently on its twelfth generation.)

123. These “next-generation” crops are often “stacked” with resistance to multiple other toxic herbicides, including Agent Orange component 2,4-D and the closely related dicamba. (“Stacked” refers to GE crops with a combination of genetic traits that allow the crop to be sprayed with two or more herbicides at the same time without the crops being damaged.) Yet, far from providing any panacea, these new GE crops are further expected to lead to a vast increase in herbicide use, as illustrated by an estimated three- to seven-fold rise in agricultural use of 2,4-D in coming years, and increasingly intractable weeds resistant to multiple herbicides.

124. Further, because superweeds are not loyal to the croplands on which they originate, they can also take-up residence on non-cultivated, non-agricultural refuge lands. This can crowd out native plants and wildlife habitat, and create the need for even further pesticide use on surrounding non-agricultural croplands.

125. Finally, another potential adverse impact of GE crops is transgenic contamination—the unintended, undesired presence of transgenic material in organic or traditional crops, as well as wild plants. Transgenic contamination can happen through, among other means, wind- or insect-mediated cross-pollination, seed mixing, faulty or negligent containment, and weather events. Unlike standard chemical pollution, transgenic contamination is living pollution that can propagate itself via gene flow. Escape of transgenes into related wild plant populations is, in most cases, irreparable.

126. Harm from transgenic contamination includes both a socioeconomic and environmental component. Transgenic contamination has caused significant and widespread economic harm to the agricultural economy, both domestically and abroad; a fundamental loss of choice for farmers and consumers; and irreparable contamination of wild plants and lands. As one federal court found, “[o]nce the gene transmission occurs and a farmer’s seed crop is contaminated with the Roundup Ready gene, there is no way for the farmer to remove the gene from the crop or control its further spread.”

127. Independent studies have determined that GE crops have not resulted in yield increases. A 2014 USDA report summarizing GE crop production stated: “over the first 15 years of commercial use, GMO seeds have not been shown to definitively increase yield potentials, and in fact, the yields of herbicide-tolerant or insect-resistant seeds may be occasionally lower than the yields of conventional varieties.”

C. Endangered and Threatened Species on National Wildlife Refuges

128. Refuges are national treasures for the conservation of wildlife.

129. Many national wildlife refuges were established, in whole or in part, to serve as sanctuaries for migratory birds. Indeed, according to FWS, more than 200 national wildlife

refuges have been established specifically to provide breeding or wintering habitat for migratory birds. According to FWS, in 2017 the Refuge System was home to 220 mammal species; 700 bird species; 250 reptile and amphibian species; more than 7,000 marine species; and hundreds of pollinators and insect species. Nearly every refuge within the System conserves at least one plant or animal listed as endangered or threatened under the ESA. As of 2017, an estimated fifty-nine refuges were established with the primary purpose of protecting imperiled wildlife, such as the Bitter Creek National Wildlife Refuge to conserve the California condor, Pilot Knob National Wildlife Refuge in Missouri for the Indiana bat, and Florida Panther Wildlife Refuge, a key stronghold for one of the most endangered mammals in the United States.

130. For example, the Tennessee National Wildlife Refuge “was established to provide feeding and resting habitat for migratory birds in the central portion of the Mississippi Flyway, with an emphasis placed on providing habitat for wintering waterfowl.”

131. The same is true for the Wheeler National Wildlife Refuge in Alabama, which was created in 1938 as a breeding ground for migratory birds and other wildlife. E.O. 7926 (July 7, 1938). It was also established “for use as an inviolate sanctuary . . . for migratory birds,” such as whooping cranes and sandhill cranes. 16 U.S.C. § 715d.

132. Further, the Key Cave National Wildlife Refuge in Alabama was specifically established in 1997 to preserve the remaining habitat for the endangered Alabama cavefish, a species found exclusively on Key Cave, and to “ensure that the biological integrity of the Key Cave, Collier Cave, and Collier Bone Cave remains intact.” 72 Fed. Reg. 16812 (Apr. 5, 2017). In addition, the refuge serves as a priority one maternity cave for the federally endangered gray bat, and provides habitat for two species of blind crayfish, the *Procambarus pecki* and *Cambarus*

jonesi. The refuge also provides habitat for a variety of migratory and resident wildlife species, including the grasshopper sparrow, northern harrier, and short-eared owl.

133. In all, refuges play a key role in the recovery and protection of imperiled species. Some of the endangered and threatened species found on national wildlife refuges that may be negatively affected by the use of neonicotinoid pesticides and/or GE crops include:

| SPECIES | LISTING STATUS | REFUGE FOUND |
|-----------------------------------|----------------|-------------------------|
| Lost River Sucker | Endangered | Tule Lake NWR |
| Lost River Sucker | Endangered | Lower Klamath NWR |
| Lost River Sucker | Endangered | Clear Lake NWR |
| Lost River Sucker | Endangered | Upper Klamath NWR |
| Short-nose Sucker | Endangered | Tule Lake NWR |
| Short-nose Sucker | Endangered | Upper Klamath NWR |
| Short-nose Sucker | Endangered | Lower Klamath NWR |
| Short-nose Sucker | Endangered | Clear Lake NWR |
| Least Tern (Interior) | Endangered | Bald Knob NWR |
| Piping Plover | Threatened | Bald Knob NWR |
| Least Tern (Interior) | Endangered | Overflow NWR |
| Red-cockaded Woodpecker | Endangered | Felsenthal NWR |
| Giant Garter Snake | Threatened | Merced NWR |
| Valley Elderberry Longhorn Beetle | Threatened | Sacramento River NWR |
| Red Knot | Threatened | Bombay Hook NWR |
| Red-cockaded Woodpecker | Endangered | Upper Ouachita NWR |
| Piping Plover | Endangered | Clarence Cannon NWR |
| Least Tern (Interior) | Endangered | Yazoo NWR |
| Least Tern (Interior) | Endangered | Hillside NWR |
| Least Tern (Interior) | Endangered | St. Catherine Creek NWR |
| Red-cockaded Woodpecker | Endangered | Alligator River NWR |
| Southwestern Willow Flycatcher | Endangered | Bosque del Apache NWR |
| Rio Grande Silvery Minnow | Endangered | Bosque del Apache NWR |
| Least Tern (Interior) | Endangered | Sequoyah NWR |
| American Burying Beetle | Endangered | Sequoyah NWR |
| Least Tern (Interior) | Endangered | Reelfoot NWR |
| Least Tern (Interior) | Endangered | Chickasaw NWR |
| Least Tern (Interior) | Endangered | Lower Hatchie NWR |

| | | |
|-----------------------------|------------|------------------|
| Orange-footed Pearly Mussel | Endangered | Tennessee NWR |
| Pink Mucket Pearly Mussel | Endangered | Tennessee NWR |
| Ring Pink Mussel | Endangered | Tennessee NWR |
| Rough Pigtoe | Endangered | Tennessee NWR |
| Pygmy Madtom | Endangered | Tennessee NWR |
| Least Tern (Interior) | Endangered | Cross Creeks NWR |
| Gray Bat | Endangered | Cross Creeks NWR |
| Indiana Bat | Endangered | Cross Creeks NWR |
| Gray Bat | Endangered | Wheeler NWR |

D. Defendants Actions Related to Allowing Neonicotinoid Pesticides and GE Crops to be Used on National Wildlife Refuges for Agricultural Purposes

1. FWS's July 17, 2014 Decision

134. On July 17, 2014, the Chief of the Refuge System, James Kurth, issued a memorandum declaring the use of neonicotinoid pesticides and GE crops on national wildlife refuges for agricultural purposes to be inconsistent with FWS's BIDEH policy. In conformance with those findings, FWS required that both practices be discontinued on refuges by January 2016, and that a refuge must "only use an agricultural practice where it specifically contributes to wildlife objectives," in conformity with FWS's BIDEH policy. The final decision was made by James Kurth and the National Wildlife Refuge System Leadership Team (Leadership Team).

135. The 2014 Decision affirmatively found that FWS's BIDEH policy "is based on the underlying principle of wildlife conservation that favors management that restores or mimics natural ecosystem processes or functions to achieve refuge purpose(s)."

136. In support for its decision to phase out neonicotinoid pesticide uses, FWS explicitly found that the "prophylactic use, such as a seed treatment, of the neonicotinoid pesticides that can distribute systemically in a plant and can potentially affect a broad spectrum of non-target species is not consistent with [FWS] policy" or the Refuge Act. The FWS,

therefore, explicitly decided that “[b]y January 2016, [FWS] will no longer use neonicotinoid pesticides in agricultural practices used in the System.”

137. With regards to the continued use of GE crops in the Refuge System, FWS further found that because “[r]efuges throughout the country” had successfully demonstrated their ability to meet wildlife management objectives and accomplish refuge purposes and the objectives of the Refuge Act without the use of GE crops, that it was “no longer possible to say that [the use of GE crops was] essential to meet wildlife management objectives,” and that such practices must be discontinued.

138. Finally, through the 2014 Decision the Leadership Team’s acknowledged that “transitioning any refuge land from a primarily agricultural use to restored, native habitat works to achieve [FWS’s] goal of minimizing [its] carbon footprint” in compliance with the agency’s strategic plan for responding to climate change. The Team, therefore, “agreed to assess and identify refuges that have the ability to replace row crops used to meet wildlife management objectives with moist soil management or other techniques that restore or mimic natural ecosystem processes or functions to meet wildlife and carbon objectives.”

139. To provide FWS with continuing flexibility in administering the Refuge System, the 2014 Decision left open the possibility for neonicotinoid pesticides or GE crops to be utilized by a refuge on a limited basis, but only when essential to meet the refuge’s wildlife management objectives. When appropriate, those decisions to allow such uses were to be made on a case-by-case basis and subject to proper public review through “all applicable laws, regulations, and policies including, but not limited to, [NEPA].”

140. Following the 2014 Decision, data provided to the Plaintiffs through the Freedom of Information Act confirmed that all refuges in the Refuge System, except those specifically

granted an exception in the 2014 Decision, were in fact able to, and did, discontinue the use of neonicotinoids prior to the 2018 Decision. Upon information and belief, GE crop uses were similarly discontinued throughout the Refuge System prior to the 2018 Decision.

2. FWS's Abrupt Reversal and August 2, 2018 Decision

141. On August 2, 2018, without any advanced notice to the public or opportunity for public engagement, FWS issued a decision “withdrawing the July 17, 2014 memorandum in full.”

142. The 2018 Decision was issued by Gregory Sheehan, then Principal Deputy Director of the Fish and Wildlife Service. The decision does not acknowledge the Leadership Team or recognize it as having played any role in making the 2018 Decision.

143. The 2018 Decision does not provide a reasoned explanation—or, indeed, any explanation at all—as to how the use of neonicotinoid pesticides and GE crops found to be harmful and unnecessary in 2014 could now be used in a way that would benefit wildlife, contribute to the achievement of refuges’ purposes and the mission of the Refuge System, and be used in conformity with FWS’s BIDEH policy.

144. The 2018 Decision marked the consummation of the agency’s new decisionmaking process, is binding with immediate effect, and represents Defendants’ formal position reversing the agency’s prior approach on the uses of neonicotinoid pesticides and GE crops in the Refuge System. It is therefore a final agency action from which important legal, policy, and practical consequences flow.

145. Indeed, as the 2018 Decision explicitly provides:

Refuges that may consider the options of [GE crop] use include, but are not limited to: Tule Lake, Upper and Lower Klamath, Crab Orchard, Wheeler, Eufaula, Bald Knob, Cache River, White River, Wapanocca, Big Lake, Overflow,

Felsenthal, Merced, San Joaquin River, Sacramento River, Bombay Hook, Prime Hook, Upper Ouachita, Lacassine, Catahoula, Tensas River, Red River, Grand Cote, Lake Ophelia, Bayou Cocodrie, Blackwater, Clarence Cannon, Mingo, Tallahatchie, Coldwater River, Dahomey, Yazoo, Panther Swamp, Hillside, Morgan Brake, Theodore Roosevelt, Holt Collier, St. Catherine Creek, Alligator River, Pocosin Lakes, Mattameskeet, Bosque del Apache, Valle de Oro, Montezuma, Sequoyah, Bear Valley, Klamath Marsh, Clear Lake, Santee, Reelfoot, Chickasaw, Hatchie, Lower Hatchie, Tennessee, and Cross Creeks

146. In light of this decision, it is now Defendants' official position of that the use of bird and bee-killing neonicotinoid pesticides and pesticide-intensive GE crops can be utilized in the Refuge System and on national wildlife refuges that were established specifically for the purpose of conserving and protecting wildlife.

147. In finalizing the decision, Defendants did not consider the potential environmental impacts of the 2018 Decision as required by NEPA or assess and mitigate the effects of its action to endangered and threatened species as required by the ESA.

VI. CLAIMS FOR RELIEF

FIRST CLAIM (Violation of the Refuge Act and the APA)

148. Plaintiffs reallege and incorporate by reference all proceeding paragraphs into each of the counts set forth below.

Count One: Action is Not in Accordance with The Refuge Act

149. This claim for relief challenges Defendants' issuance of the 2018 Decision without ensuring that such action complies with the mandates of the Refuge Act, 16 U.S.C. §§ 668dd-668ee. This claim is brought under the APA's provisions for judicial review of final agency actions, 5 U.S.C. §§ 701-706(2).

150. Pursuant to the APA, courts “shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

151. The Refuge Act maintains a list of substantive duties Defendants must comply with in managing the Refuge System. Included in these responsibilities are that Defendants must: provide for the conservation of fish, wildlife, and plants, and their habitats within the Refuge System; ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations; and assist in the maintenance of adequate water quality to fulfill the mission of the Refuge System and the purposes of each refuge. 16 U.S.C. § 668dd(a)(4).

152. The Refuge Act additionally establishes that FWS “shall not [programmatically or otherwise] initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless [it] has determined that the use is a compatible use.” *Id.* § 668dd(d)(3)(A)(i). A “compatible use” is any use of a refuge that, based on “sound professional judgment, [] will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge.” *Id.* § 668ee(1); 50 C.F.R. § 25.12.

153. Even further, FWS may only authorize an economic use of a refuge—such as a farming use—if the use “*contributes* to the achievement of the national wildlife refuge purposes or the National Wildlife Refuge System mission.” 50 C.F.R. § 29.1 (emphasis added).

154. Consistent with these obligations, on July 17, 2014 FWS issued a decision phasing-out the use of neonicotinoid pesticides and GE crops for agricultural purposes throughout the Refuge System. The 2014 Decision advanced the objectives Refuge Act and the agency’s biological integrity, diversity, and environmental health policy. FWS’s action was

supported by sound science and based on unambiguous determination that such practices were not compatible with the mission of the Refuge System.

155. In 2018, through the final agency action challenged herein, FWS fully withdrew the 2014 Decision. In taking that action, FWS failed to establish how its withdrawal of the 2014 Decision and resultant reintroduction of neonicotinoid pesticides and GE crops for agricultural uses back into the Refuge System will ensure its continuing compliance with the duties and responsibilities of the Refuge Act.

156. The 2018 Decision does not mention, let alone demonstrate, that the reintegration of neonicotinoid pesticides and GE crops into the Refuge System for agricultural purposes will ensure the biological integrity, diversity, and environmental health of the refuges in the Refuge System, or provide for the conservation of fish, wildlife, and plants, and their habitats. 16 U.S.C. § 668dd(a)(4)(A), (B).

157. The 2018 Decision further fails to adequately disclose and consider how the reintroduction of practices commonly understood to negatively affect water quality will assist in the “maintenance of adequate . . . water quality to fulfill the mission of the System and purposes of each refuge” *Id.* § 668dd(a)(4)(F).

158. The 2018 Decision additionally does not rationally justify how authorizing the use of neonicotinoid pesticides and GE crops to support the economic use of farming will actively “*contribute[]* to the achievement of the national wildlife refuge purposes or the National Wildlife Refuge System mission.” 50 C.F.R. § 29.1 (emphasis added).

159. According to Defendants, the 2018 Decision is a permanent departure from its prior interpretation and 2014 Decision.

160. The 2018 Decision is binding on, and is being followed by, all regions of the FWS, and establishes the legal rights and duties of FWS in implementing the Refuge Act.

161. Defendants cannot adopt an action applicable to the whole of the Refuge System that is manifestly contrary to the text and purpose of the Refuge Act and its implementing regulations and policies.

162. The 2018 Decision, therefore, fails to meet the substantive statutory requirements of the Refuge Act and is consequently arbitrary, capricious, an abuse of discretion, and not in accordance with law, in violation of 5 U.S.C. § 706(2)(A).

Count Two: Arbitrary and Capricious Decision Making

163. When taking an agency action, Defendants must articulate a satisfactory explanation for that action, including a rational connection between the facts found and the choice made. An action is arbitrary and invalid if the agency relies on “factors which congress has not intended it to consider,” “offer[s] an explanation for its decision that runs counter to the evidence before the agency,” or evidences an “[u]nexplained inconsistency” between an agency’s actions.

164. Under the Refuge Act, FWS should only allow uses of a refuge that are compatible with the mission of the Refuge System and purposes of a refuge. That finding must be based on “sound professional judgment . . . [that the use] will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge.” 16 U.S.C. § 668ee(1); 50 C.F.R. § 25.12. “Sound professional judgment” means “a finding, determination, or decision that is consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of [the Refuge] Act and other applicable laws.” 16 U.S.C. § 668ee(3).

165. The 2018 Decision fails to clear any of these hurdles.

166. By way of example, in the 2018 Decision FWS relied on “factors which congress has not intended it to consider” in supporting its decision to reintroduce GE crops into the Refuge System with the following explanation: that “[GE crops] have been developed and proven effective in contributing to the *maximization of crop production.*” (Emphasis added). The “maximization of crop production” is not a factor that Congress intended FWS to consider in determining whether a use such as farming with GE crops is compatible and allowable under the Refuge Act. Even further and despite that error, the science on GE crop yields also does not support FWS’s claim that re-introduction of GE crops into the Refuge System will necessarily maximize crop production.

167. The 2018 Decision also “offer[s] an explanation for its decision that runs counter to the evidence before the agency” because it fails to address any of the factual findings that underpin the 2014 Decision, including that the continued use of neonicotinoid pesticides would be inconsistent with the agency’s BIDEH policy and that the use of GE crops was not essential to meet wildlife management objectives. Indeed, with regards to the continued use of GE crops, the FWS provided no substantive support for why, after almost ten years of successfully not using GE crops in refuges, those practices must now be considered “essential,” as that term is understood under the Refuge Act.

168. The 2018 Decision also fails to explain why it is necessary or reasoned in light of the case-by-case flexibility for these uses already provided through the 2014 Decision.

169. In the 2018 Decision, FWS provides no reasoned explanation for its departure from the 2014 Decision, and interprets the language of the Refuge Act in a manner that is contrary to, and inconsistent with, the goals and objectives of the Act. FWS also provides no

reasoned explanation for why the 2018 Decision does not run counter to the evidence before the agency or explain how its 2018 Decision is supported by sound professional judgment.

170. The 2018 Decision is therefore arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with law, in violation of the APA. 5 U.S.C. § 706(2)(A).

SECOND CLAIM
(Violation of NEPA and the APA)

171. Plaintiffs reallege and incorporate by reference all proceeding paragraphs into each of the counts set forth below.

172. NEPA is our “basic national charter for protection of the environment.” 40 C.F.R. § 1500.1(a).

173. Among other things, NEPA requires all agencies of the federal government to prepare a “detailed statement” that discusses the environmental effects of, and reasonable alternative to, all “major federal actions significantly affecting the quality of the human environment,” commonly known as an EIS. 42 U.S.C. § 4332(2)(C).

174. NEPA defines federal “actions” subject to the EIS requirement as consisting of, among other things, “new or revised agency rules [and] . . . policies,” “[a]doption of official policy, such as rules, regulations, and interpretations,” “official documents prepared or approved by federal agencies which guide or prescribe alternative uses of Federal resources,” and “[a]doption of programs, such as a group of concerted actions to implement a specific policy or plan.” 40 C.F.R. § 1508.18.

175. The environmental effects that must be considered in an EIS include direct effects, “indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable,” and cumulative effects. *Id.* §§ 1508.7; 1508.8;

1508.27(b)(7). The purpose of an EIS is to inform the decision-makers and the public of the significant environmental impacts of the proposed action, means to mitigate those impacts, and reasonable alternatives that will have lesser environmental effects.

176. An agency may first prepare an EA to determine whether to prepare an EIS or instead issue a FONSI. *Id.* §§ 1501.4(b); 1508.9.

177. NEPA requires that defendants use high quality, accurate scientific information and ensure the scientific integrity of the analysis in an EIS and EA. *See id.* §§ 1500.1(b); 1502.24.

178. Defendants performed a major federal action here by adopting an “official policy, such as rules, regulations, and interpretations” that has national implications.

179. There is nothing broad, speculative, or conjectural about the environmental effects of Defendants’ action here, which pose significant adverse impacts to the human environment. Nor is there any merit to the idea that any later NEPA process will ensure Defendants’ ability to conduct a meaningful analysis of all of the direct, indirect, and cumulative effects of its actions, or enable it to mitigate and reduce the environmental harms of the action, as NEPA requires.

180. Defendants had discretion in taking the challenged action.

181. In taking this action, however, Defendants failed to take a hard look, either by way of an EIS or an EA, at the environmental effects of the 2018 Decision.

182. Defendants’ failure to prepare an EIS or even an EA, or otherwise comply with NEPA in any manner, in connection with the 2018 Decision, violates NEPA and its implementing regulations, and is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” in violation of the APA. 5 U.S.C. §706(2)(A). It also constitutes agency action unlawfully withheld and unreasonably delayed in violation of 5 U.S.C. § 706(1).

THIRD CLAIM
(Violation of the ESA)

183. Plaintiffs reallege and incorporate by reference all proceeding paragraphs into each of the counts set forth below.

184. The ESA requires that an agency initiate and participate in consultation whenever a discretionary agency action, like the challenged Decision, “may affect listed species or critical habitat,” 50 C.F.R. §§ 402.14(a); 402.02(b).

185. That standard was easily met here because the 2018 Decision is an agency action that may affect ESA-listed species or designated critical habitat. More specifically, the 2018 Decision broadly allows for the use of GE crops and neonicotinoid pesticides in national wildlife refuges, which exposes endangered and threatened species on refuges to these agricultural uses and increases the likelihood of negative impacts to the above-listed species, as well as to the quality of their habitats, water, air, and food-sources.

186. Indeed, not only does this action pass the “may affect” threshold, it also likely exceeds the “likely to adversely affect” threshold as well, thereby triggering the requirement to conduct formal consultation.

187. Nonetheless, FWS issued the 2018 Decision without first initiating consultation activities or preparing a Biological Opinion. This failure violates the informational, procedural, and substantive requirements of Section 7 of the ESA. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14.

188. Defendants also failed to protect against the “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,” 16

U.S.C. § 1536(d), or to comply with its substantive duty to “insure” that its promulgation of the 2018 Decision “is not likely to jeopardize the continued existence of” any threatened or endangered species or cause “the destruction or adverse modification” of critical habitat, in violation of ESA section 7(a)(2), *id.* § 1536(a)(2).

189. The ESA violations set forth above will continue until they are abated by an order of this Court. This Court has jurisdiction to enjoin Defendants’ violations of the ESA alleged above and such relief is warranted under 16 U.S.C. § 1540(g).

REQUEST FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that this Court:

1. Declare the 2018 Decision to be in violation of the Refuge Act, APA, NEPA, and the ESA;
2. Declare that Defendants violated NEPA by failing to prepare a programmatic EIS or other NEPA analysis for its development and adoption of the 2018 Decision;
3. Declare that Defendants violated the ESA, 16 U.S.C. § 1536(a)(2), by failing to complete consultation necessary to ensure that the 2018 Decision is not likely to jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat;
4. Vacate the 2018 Decision;
5. Reinstate the *status quo ante*, which is the 2014 Decision prohibiting the use of neonicotinoid pesticides and GE crops in the Refuge System;
6. Award Plaintiffs their costs of litigation; and
7. Grant Plaintiffs any other relief as the Court deems just and proper.

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Dated this 26th day of September 2019.

Respectfully submitted,

/s/ Hannah M.M. Connor

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