## **EXECUTIVE SUMMARY**

The Center for Food Safety (CFS) is petitioning United States Fish and Wildlife Service (FWS) to take immediate action to ban genetically engineered (GE) crops and neonicotinoids in National Wildlife Refuges (NWRs). FWS has allowed GE crops and neonicotinoid use on NWRs despite the fact that they cause substantial environmental harm and thus are antithetical to the Refuge Act and the very purposes of NWRs. This petition explains that these practices, while common in industrial agriculture, have no place on federal public lands set aside to provide refuge to wildlife. In addition, CFS has asked FWS to take immediate action to comply with the Endangered Species Act (ESA), our nation's bedrock wildlife protection law. Nearly 300 threatened or endangered species rely on habitat in our National Wildlife Refuges. By failing to ban or even properly consider the impacts of GE crops and neonicotinoids on these protected species and refuge lands, FWS is failing to comply with its mandate to protect these species from extinction.

The National Wildlife Refuge Act requires that all activities in NWRs further the conservation mission of the Act, and where a use is incompatible with that mission, it is flatly prohibited. Farming has long been allowed in NWRs because FWS has determined that it provides food for migratory birds and other wildlife species in furtherance of refuge purposes. However, in recent years FWS has allowed two highly controversial agricultural practices on NWRs, the growing of GE crops and the use of seeds treated with neonicotinoids, a deadly class of insecticides.

In this Petition, CFS presents FWS with extensive documentation of the harms caused by GE crops and neonicotinoids, showing the agency how these activities cannot be compatible with refuge purposes. In addition, it explains that by not banning, or even properly considering, the impacts of these activities, FWS is failing to meet its obligation under the Endangered Species Act, including its mandate to prevent jeopardy to threatened and endangered species. By taking expeditious action to ban GE crops and neonicotinoids, FWS can comply with its legal obligations under the ESA and the Refuge Act, ensuring that our nation's NWRs remain what they were designed to be, a refuge for wildlife and a gem for all the American people to enjoy.

GE crops threaten refuge values because they can genetically contaminate native and conventional plants, they have caused an epidemic of habitat invading superweeds, and their use has resulted in massive increases in herbicide use in the U.S. The vast majority of GE crops in America are engineered to withstand what would otherwise be toxic doses of herbicides, thus the adoption of GE crops has resulted in indiscriminate, rather than targeted, spraying in agricultural fields. The use of GE crops has caused significant adverse impacts to ecosystems, and has not yielded the promised increases in yields or solutions to global problems such as climate change and hunger. FWS has adopted a policy stating that GE crops may not be used on NWRs unless they are essential to accomplish refuge purposes, but despite this policy, has continued to allow

private farmers to profit by growing GE crops on NWRs.

Neonicotinoids are a potent new class of insecticides that have become widely used as seed treatment for crops such as corn, soy, canola, and cotton. Neonicotinoids are highly toxic to pollinators and are one of the leading causes of massive bee die-offs. The widespread loss of pollinators threatens our nation's food supply as well as native plants and the species that rely on them for survival. Once treated with a neonicotinoid, a plant becomes highly toxic to invertebrates, and dust containing neonicotinoids in agricultural fields kills non-target species such as bumble bees, butterflies, and birds. Neonicotinoids are highly persistent, with half lives of up to 1,155 days, thus their impacts to ecosystems are long-term. The European Union has banned neonicotinoids but FWS has allowed farmers to grow crops from seeds treated with neonicotinoids on NWRs despite their devastating impacts.

The National Wildlife Refuge system is a vital component of America's natural heritage. Congress created NWRs to ensure that present and future generations benefit from this national network of land set aside for the conservation, management, and restoration of fish, wildlife, plants, and their habitats. NWRs contain a diverse array of protected habitat types, including rare and ecologically significant lowland grasslands and wetlands. Protections for these habitat types are crucial because NWRs often exist in the very ecosystems most threatened by development. Researchers have documented a net decline in grass-dominated land cover totaling nearly 530,000 hectares between 2006-2011 as grassland and associated wetlands are converted to soy and corn fields. This loss of grassland habitat threatens native flora and fauna, and makes the safeguarding of habitat in NWRs more important than ever.