CITIZEN PETITION TO THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CENTER FOR FOOD SAFETY 660 Pennsylvania Avenue SE, Suite 302 Washington, DC 20003 (Tel: 202.547.9359) Petitioner,	
	Docket Number:_____
Filed With:	
GINA MCCARTHY in her official capacity as, Administrator Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Washington, DC 20460	

CITIZEN PETITION TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY SEEKING POLICIES TO PROTECT WATER QUALITY FROM CONTAMINATION BY NEONICOTINOID INSECTICIDES

PETITIONER

Petitioner **Center for Food Safety (CFS)** is a Washington, D.C.-based, public interest, nonprofit membership organization with offices in San Francisco, CA; Portland, OR; Honolulu, HI; and Washington, D.C. It files this Petition on behalf of itself and its members. CFS has over 730,000 members nationwide. CFS seeks to protect human health, water quality and the environment generally by advocating for thorough, science-based safety testing of new agricultural products prior to any marketing and cultivation of crops in a manner that minimizes negative impacts, such as increased use of pesticides and resulting water contamination. A foundational part of CFS's mission is to further the public's and CFS's members' fundamental right to know about food production technologies. In keeping with this mission, CFS issued the report that is the basis for this Petition, *Water Hazard—Aquatic Contamination by Neonicotinoid Insecticides in the United States* (*Water Hazard* report), which describes widespread ongoing contamination in excess of safe levels, including several studies exceeding Benchmark levels set by EPA to protect aquatic life.[1]

BASIS FOR PETITION

Under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. §136 *et seq.*, the Environmental Protection Agency (EPA) regulates pesticide use in the United States. Yet, the *Water Hazard* report, which is attached hereto and incorporated into this Petition by this reference, describes excessive current aquatic contamination amounting to unreasonable adverse environmental effects, as follows (from the Executive Summary, pages 4-5):

[1] M. Carnemark, P. Jenkins, and L. Walker, *Water Hazard—Aquatic Contamination by Neonicotinoid Insecticides in the United States*, Center for Food Safety, Washington, D.C. (2015) *available at*: www.centerforfoodsafety.org/files/neonic-water-report-final-9152015_web_50152.pdf .

- Within the last several decades the use of highly toxic and long-lasting insecticides, in particular a class of chemicals known as **neonicotinoids**,[2] have become hazardous to the waters that wildlife such as fish, amphibians and birds—and people—rely upon.
- Neonicotinoids are water soluble and systemic in nature, meaning they are taken up in the vascular system of a treated plant, thereby rendering the whole plant toxic. It doesn't stop there; the use of neonicotinoids has led to widespread contamination of soil, fields, puddles, ditches, streams, groundwater, lakes, rivers and marine areas. Researchers across the United States, Canada, and Europe are repeatedly finding high levels of neonicotinoid residues that exceed vital standards set to protect aquatic life. Neonicotinoid coatings applied to crop seeds are one of the leading causes of contamination. These toxic seed coatings are almost tailor-made to contaminate the environment. Instead of staying on the plants, for corn seeds (the single most extensive use of these coatings) approximately 95% of the neonicotinoid coating is scraped, blown, sloughed off, or otherwise dispersed into the surrounding air, soil and water.
- The report shines light for the first time on the full scope of this unrecognized threat to our waters. Representative case studies from Maryland, Iowa and California are examined. Each of these States is experiencing widespread neonicotinoid contamination exceeding recommended standards set by leading experts in aquatic species toxicology – and in several cases exceeding EPA's Aquatic Benchmarks. The report also highlights contamination elsewhere, including New York, South Dakota, Texas, and Wisconsin.
- The report describes the key roles of irrigation and field drainage and discusses the growing risks to aquifers and vulnerable wetland areas. This nationwide water contamination and the numerous high-level findings in monitoring studies suggest that we are approaching an ecological crisis—a second *Silent Spring*.
- Alarmingly, the EPA's approvals of hundreds of neonicotinoid insecticide products typically have major data gaps in terms of their foreseeable impacts on

[2] The neonicotinoids are: acetamiprid, clothianidin, dinotefuran, imidacloprid, thiacloprid and thiamethoxam.

surface and ground water. Furthermore, EPA's Benchmarks for aquatic invertebrate toxicity lack scientific support and are far too lax. Yet, these products are applied on more than 150 million acres annually—about one-twelfth of the area of the contiguous United States. The runoff from their use flows—both above and below ground—far beyond the agricultural fields, gardens, trees, lawns and many other areas where they were first applied, causing unintended insecticidal effects on non-target animal species across a vast measure of additional wetlands and water bodies.

- The downstream victims are aquatic insects, other key invertebrates like crayfish, and innumerable birds that depend on aquatic life for food. Peer-reviewed published studies from Holland show that neonicotinoid water contamination correlates significantly with bird population declines. Similar research is amassing in the United States. Furthest downstream, preliminary science indicates that neonicotinoids are also harmful to blue crabs and other marine species.

PETITION REQUESTS

FIFRA prohibits EPA from registering a pesticide if its use would have "unreasonable adverse effects on the environment." 7 U.S.C § 136a(c)(5). The ongoing aquatic contamination described in the appended *Water Hazard* report illustrates that the neonicotinoid insecticides are causing unreasonable adverse effects. Allowing such pesticides is irresponsible and contrary to FIFRA. While this Petition does not address any particular product registrations, it does seek broad, programmatic change to protect the Nation's waters.

Accordingly, pursuant to the Right to Petition Government Clause contained in the First Amendment of the United States Constitution,[3] the Administrative Procedure Act (APA)[4] and

[3] "Congress shall make no law . . . abridging . . . the right of the people . . . to petition Government for a redress of grievances." U.S. CONST. amend. I. The right to "petition for a redress of grievances [is] among the most precious of the liberties safeguarded by the Bill of Rights." United Mine Workers of Am. v. Illinois State Bar Ass'n, 389 U.S. 217, 222 (1967). The Supreme Court has recognized that the right to petition is logically implicit in, and fundamental to, the very idea of a republican form of government. United States v. Cruikshank, 92 U.S. 542, 552 (1876).

[4] 5 U.S.C. § 553(e).

EPA's implementing regulations,[5] the Petitioners request the agency, after considering the full details on these topics in the *Water Hazard* report, to promptly take these six water quality protection steps:

1. Adopt rigorous national aquatic contamination thresholds/benchmarks to avoid lasting effects on aquatic invertebrates specifically: 0.2 ppb for short-term acute exposures, and 0.035 ppb for long-term chronic exposures.[6]

2. Because of their contamination of surface and ground waters, stop classifying neonicotinoids as "reduced risk" pesticides and fast-tracking their registrations; also end Conditional Registrations for them.

3. Use more representative aquatic test species and long-term mesocosm studies for determining biological risks in aquatic ecosystems.

4. Drastically strengthen neonicotinoid product labels for all uses that foreseeably will impact aquatic ecosystems to prevent or mitigate such impacts.

5. Conduct more systematic research and monitoring on the effects of aquatic contamination, including the human health implications.

6. Marine and estuarine protection campaigns nationwide in which EPA is engaged should specifically address neonicotinoid contamination.

Failure by EPA to take the actions Petitioners request would severely harm Petitioners' interests. It also would be contrary to the mandates of FIFRA and the APA. In view of the

[5] 40 C.F.R. § 154 Subpart A and §154.10.

[6] The bases for these recommendations are in the CFS *Water Hazard* report, relying on the key review study that first offered the recommendations: Morrissey, C. A., Mineau, P., Devries J.H., Sanchez-Bayo F., Liess, M., Cavallaro, M.C., Liber, K., 2015. Neonicotinoid contamination of global surface waters and associated risk to aquatic invertebrates: A review. *Environment International* 74:291-303

severity of the harm being inflicted on the Nation's waters, the agency is urged to grant the requests in this Petition within **180 days** of its filing date.

DATED this 29th day of January, 2016.

/s/_____
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ATTACHMENT – INCORPORATED INTO PETITION

CFS Report: *Water Hazard—Aquatic Contamination by Neonicotinoid Insecticides in the United States*