

JENNIFER LODA (CA Bar No. 284889)
PEGGA MOSAVI (*Pro Hac Vice* Pending)
Center for Food Safety
303 Sacramento Street, 2nd Floor
San Francisco, CA 94111
Phone: (415) 826-2770
Emails: jloda@centerforfoodsafety.org
pmosavi@centerforfoodsafety.org

Counsel for Plaintiffs

**THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA**

ALIANZA NACIONAL DE) Case No. 22-cv-9030
CAMPELINAS, PESTICIDE ACTION)
NETWORK NORTH AMERICA,)
RURAL COALITION, CENTER FOR) **COMPLAINT FOR**
ENVIRONMENTAL HEALTH,) **DECLARATORY AND**
ORGANIZACIÓN EN CALIFORNIA) **INJUNCTIVE RELIEF**
DE LÍDERES CAMPELINAS, AND)
CENTER FOR FOOD SAFETY,) Administrative Procedure Act
Case

Plaintiffs,

v.

UNITED STATES)
ENVIRONMENTAL PROTECTION)
AGENCY and MICHAEL REGAN,)
ADMINISTRATOR, UNITED STATES)
ENVIRONMENTAL PROTECTION)
AGENCY,)

Defendants.

TABLE OF CONTENTS

1

2

3 INTRODUCTION 1

4 JURISDICTION..... 4

5 VENUE..... 4

6 DIVISIONAL ASSIGNMENT 4

7 PARTIES 4

8 STATUTORY BACKGROUND 10

9 STATEMENT OF THE FACTS 12

10 CAUSE OF ACTION 49

11 PRAYER OF RELIEF 50

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

GLOSSARY

- 1
- 2 APA - Administrative Procedure Act
- 3 EDSP - Endocrine Disruptor Screening Program
- 4 EDSTAC - Endocrine Disruptor Screening and Testing Advisory Committee
- 5 EPA - Environmental Protection Agency
- 6 FFDCA - Federal, Food, Drug, and Cosmetic Act
- 7 FIFRA - Federal Insecticide, Fungicide, and Rodenticide Act
- 8 FQPA - Food Quality Protection Act
- 9 IG - Inspector General

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

1 Plaintiffs Alianza Nacional de Campesinas, Pesticide Action Network North
2 America, Rural Coalition, Center for Environmental Health, Organización en
3 California de Líderes Campesinas, and Center for Food Safety (Plaintiffs), on behalf
4 of themselves and their members, allege as follows:

5 INTRODUCTION

6 1. This is an action for declaratory and equitable relief challenging the
7 failure of the United States Environmental Protection Agency (EPA or agency) to
8 implement the Endocrine Disruptor Screening Program (EDSP) by the statutory
9 deadline of August 3, 1999, and to test all pesticide chemicals for possible endocrine
10 effects as the agency is required to do in accordance with the Food Quality
11 Protection Act (FQPA).¹

12 2. Congress unanimously enacted the FQPA in 1996. The Act, an
13 overhaul of federal pesticide and food safety policy, responded to scientific
14 advancements revealing the dangers posed by many pesticides used in the United
15 States, particularly to children.

16 3. The science of endocrine disruption grew substantially between the
17 late 1980s and mid-1990s, with contributions from scientific disciplines ranging
18 from conservation biology to endocrinology to toxicology.² Various scientists
19 discovered that certain chemicals were disrupting the endocrine systems of both
20 humans and wildlife, impairing development and reproduction.³ Scientific studies
21 have since linked endocrine disruption to additional adverse human health
22 outcomes, including but not limited to altered nervous system function, disrupted

23
24 ¹ Food Quality Protection Act of 1996, Pub. L. No. 104-170, 110 Stat. 1489 (1996)
(codified as amended in scattered sections of 21 U.S.C. § 301 et seq.).

25 ² Maricel V. Maffini & Laura N. Vandenberg, *Failure to Launch: The Endocrine*
26 *Disruptor Screening Program at the U.S. Environmental Protection Agency*,
FRONTIERS IN TOXICOLOGY, May 2022, at 2.

27 ³ *Id.*

1 immune function, cancer, respiratory issues, metabolic abnormalities, diabetes,
2 obesity, cardiovascular problems, and neurological and learning disabilities.⁴

3 4. In response to scientific and broader public concern that certain
4 chemicals interfere with the endocrine system and adversely affect human health,
5 Congress included provisions in the FQPA requiring EPA develop and implement a
6 program investigating the potential endocrine effects posed by all pesticide
7 chemicals and do it within established timelines.

8 5. Congress mandated EPA implement an endocrine disruptor screening
9 program no later than August 1999 and tasked EPA with reviewing *every* registered
10 pesticide chemical for potential human endocrine disruption. Congress also required
11 EPA to use this information and its legal authority to take action to safeguard
12 humans from chemicals that have endocrine effects. However, EPA can only take
13 such actions to protect public health by complying with the FQPA's mandates,
14 starting with implementing the EDSP and completing the testing of all registered
15 pesticide chemicals for possible endocrine effects. EPA's failure to implement the
16 EDSP leaves all humans and wildlife vulnerable to the health harms of endocrine
17 disruptors.

18 6. As of the time of this filing, more than twenty-five years after the
19 passage of the FQPA, EPA has yet to implement the EDSP it created and further,
20 has failed to even initiate endocrine testing for approximately 96% of registered
21 pesticides. Of the few pesticide chemicals that EPA has begun the screening process
22 for, almost half remain unfinished, with more screening necessary to definitively
23

24 ⁴ *Endocrine-Disrupting Chemicals (EDCs)*, ENDOCRINE SOC'Y (Jan. 24, 2022),
25 <https://www.endocrine.org/patient-engagement/endocrine-library/edcs>
26 [hereinafter Endocrine Society]; see generally A.C. Gore et al., *EDC-2: The*
27 *Endocrine Society's Second Scientific Statement on Endocrine Disrupting*
28 *Chemicals*, ENDOCRINE REV. Dec 2015, at E1,
<https://academic.oup.com/edrv/article/36/6/E1/2354691>.

1 determine endocrine effects. This continuing failure is despite reviews of the EDSP
2 by the Office of Inspector General, drawing attention to the program's failings and
3 making recommendations to promote progress.

4 7. Further, EPA also missed its own timelines for implementation of the
5 EDSP, timelines set by Congress upon appropriation of additional funds, and court-
6 imposed timelines set pursuant to a prior litigation settlement agreement. EPA
7 failed to even complete endocrine screening of a small subset of pesticides that the
8 agency itself flagged as potential endocrine disruptors over seven years ago.

9 8. All these failings are indications of EPA's lack of commitment to
10 implement the EDSP and to achieve its congressional purpose of safeguarding
11 public health, in violation of Congress's commands.

12 9. EPA's failure to abide by their statutory mandates to "implement" the
13 EDSP by August 3, 1999, and to test all pesticide chemicals for possible endocrine
14 effects violates the Administrative Procedure Act (APA), because EPA cannot
15 "unlawfully withhold" or "unreasonably delay" agency action. 5 U.S.C. § 706. And as
16 a result of EPA's inaction on the EDSP, EPA continues to approve the use of
17 pesticides in vast quantities without adequately considering their potential to
18 impact endocrine systems, with the associated risks that Congress decades ago
19 commanded the agency to address still going unabated.

20 10. Accordingly, this Court should hold that EPA's failure to implement
21 the EDSP and test all pesticide chemicals for possible endocrine effects violates the
22 FQPA and APA, and order EPA to implement the EDSP and test all pesticide
23 chemicals by a Court-ordered date(s) certain and without further unlawful delay.

1 **JURISDICTION**

2 11. This Court has jurisdiction over this action pursuant to 28 U.S.C. §
3 1331 (federal question) and 28 U.S.C. § 1346 (United States as Defendant).

4 12. Plaintiffs have a right to bring this action pursuant to the
5 Administrative Procedure Act (APA). 5 U.S.C. § 702.

6 13. The relief requested is specifically authorized pursuant to 28 U.S.C. §§
7 1651 (writs) and §§ 2201 to 2202 (declaratory relief), as well as under the APA, 5
8 U.S.C. §§ 701-706. An actual controversy exists between the parties within the
9 meaning of 28 U.S.C. § 2201 (declaratory judgments).

10 **VENUE**

11 14. Venue properly lies in this Court pursuant to 28 U.S.C. § 1391(e)
12 because one or more Plaintiffs reside in this District.

13 **DIVISIONAL ASSIGNMENT**

14 15. The action arises outside of the district, but venue is proper due to
15 Plaintiffs' residency. Center for Food Safety maintains an office in San Francisco
16 County. Thus, pursuant to Civil L.R. 3-2(c), it is appropriate to request intradistrict
17 assignment in San Francisco.

18 **PARTIES**

19 ***Plaintiffs***

20 16. Plaintiffs are public interest nonprofit organizations with dedicated
21 programs addressing and reducing the harms of pesticides to human health and our
22 environment. They include Alianza Nacional de Campesinas, Pesticide Action
23 Network North America, Rural Coalition, Center for Environmental Health,
24 Organización en California de Líderes Campesinas, and Center for Food Safety.

25 17. Plaintiff **Alianza Nacional de Campesinas** (Alianza Nacional) is a
26 tax-exempt, nonprofit organization of farmworker women, comprised of fifteen
27 member organizations based across ten states and Washington D.C. Its members
28

1 include Plaintiffs Líderes Campesinas and Rural Coalition. Alianza Nacional
2 addresses a wide range of topics affecting farmworker women (campesinas),
3 including the effects of pesticide exposure on farmworker women and their families.
4 Alianza maintains a campaign, the Satchel (Moralitos), dedicated to creating public
5 awareness about the health risks posed by pesticide exposure to farmworker women
6 and their families. Alianza members hold community events where they teach
7 women how to protect themselves from pesticide exposure, what to do in the event
8 of an exposure, and what the current EPA policies are on legal pesticide use.
9 Alianza is actively working to strengthen pesticide protections for farmworkers, by
10 pushing for more protective legislation, and as here, engaging in public interest
11 litigation to protect the interests of farmworker women and their families. The
12 interests of Alianza Nacional and its members in the health and wellbeing of
13 farmworker women are being, and will be, adversely affected by EPA's continuing
14 failure to complete testing of all pesticide chemicals for endocrine effects.

15 18. Plaintiff **Pesticide Action Network of North America** (PANNA) is
16 a Berkeley, California-based, nonprofit corporation that serves as an independent
17 regional center of Pesticide Action Network International, a coalition of public
18 interest organizations in more than ninety countries. It brings this action on behalf
19 of itself and its members, particularly small-scale farmers, beekeepers,
20 farmworkers, and indigenous members. For nearly thirty years, PANNA has
21 worked to replace the use of hazardous pesticides with healthier, ecologically sound
22 pest management across the United States and around the world. PANNA provides
23 scientific expertise, public education and access to pesticide data and analysis, and
24 policy development and coalition support to more than 100 affiliated organizations
25 in North America. PANNA has more than 50,000 members across the United
26 States. PANNA's members live, work, farm, and recreate in areas of the country
27 where pesticides are applied, and thus have a strong interest in ensuring that EPA
28

1 protect public health and the environment from the potential pesticide chemicals
2 that are endocrine disruptors. PANNA's members are highly concerned by EPA's
3 lack of testing of pesticide chemicals for possible endocrine effects on humans and
4 wildlife.

5 19. Plaintiff **Rural Coalition** is a tax-exempt, nonprofit membership
6 organization located in Washington, D.C. that represents fifty grassroots and
7 community based organizational members. Rural Coalition seeks just and
8 sustainable food systems that bring fair returns to diverse small farmers and
9 ranchers, tribal and other small communities; fair and safe working conditions and
10 dignity for farmworkers and food chain workers; protection of mother earth; and
11 safe, adequate, and healthy food for all, especially the elders, youth, and most
12 vulnerable among us. Rural Coalition addresses the needs and concerns of
13 historically underserved minority family farming communities and the issue of
14 worker protection, including protection of farmworkers. Rural Coalition submits
15 comments to regulatory agencies, provides action alerts to its members to encourage
16 effective participation in the administrative rule making process, and when
17 necessary, and as here, engages in public interest litigation to address the impacts
18 of the current industrial food production model and its impacts on farmworkers and
19 rural communities. Rural Coalition and its members are injured by EPA's failure to
20 complete testing of all pesticide chemicals for endocrine effects. Many of Rural
21 Coalition's members are farmers and farmworkers who live in rural areas where
22 excessive amounts of pesticides are applied to crops. Rural Coalition's member
23 groups also represent workers in the nursery industry, and those who maintain golf
24 courses and other landscapes where pesticides are routinely applied. Rural
25 Coalition and its members are concerned about the detrimental impacts on farmers,
26 farmworkers, and on the public health of rural farm communities that will result

1 from the continued failure to complete testing of all pesticide chemicals for
2 endocrine effects.

3 20. Plaintiff **Center for Environmental Health** (CEH) is a tax-exempt,
4 nonprofit corporation with an office in Oakland, California. Founded in 1996, CEH
5 is a nonprofit organization dedicated to protecting the public from environmental
6 and public health hazards, including harmful pesticides. CEH achieves its mission
7 by working with communities, consumers, workers, government, and the private
8 sector to demand and support business and agricultural practices that are safe for
9 public health and the environment.

10 21. As part of its mission, CEH and its staff have long been involved in
11 efforts to combat the negative human health and environmental effects of pesticides
12 and other harmful contaminants in our food system. For example, CEH is a member
13 of Californians for Pesticide Reform, an organization whose mission is to protect
14 public health, improve environmental quality, and expand a sustainable and just
15 agriculture system by seeking to change state and local pesticide policies and
16 practices. When necessary, CEH also engages in public interest litigation to address
17 the concerns of pesticide safety raised by the current regulatory framework and the
18 negative impacts of unsafe products. The interests of CEH and its members in
19 reducing the harmful impacts stemming from pesticide use are being, and will be,
20 adversely affected by EPA's ongoing failure to implement the EDSP and test all
21 pesticide chemicals for endocrine effects.

22 22. Plaintiff **Organización en California de Líderes Campesinas**
23 (Líderes Campesinas) is a tax-exempt, nonprofit membership organization of
24 farmworker women and girls located in Oxnard, California and has organized its
25 Chapters around rural regions in California, including: Salinas, Greenfield,
26 Soledad, Madera, Huron, Merced, Fresno, Ventura County, Coachella Valley,
27 Northern Santa Barbara, Sonoma, Napa, and Kern. Líderes Campesinas represents
28

1 a culmination of decades of work by farm working women (campesinas).
2 Farmworker women have been the leaders of many grassroots and mobilizing
3 efforts to improve the lives of farmworker communities. Líderes Campesinas
4 provides these long-time leaders and activists with the opportunity to coordinate
5 their work statewide and has built collectives so that campesinas may become
6 agents of change and be a more effective unified voice. Líderes Campesinas
7 addresses a wide range of topics affecting campesinas, including the effects of
8 pesticides on farmworkers and rural agricultural communities. Líderes Campesinas
9 has educated farmworkers and created brochures in Spanish to provide written
10 information for campesinas, including brochures on how to prevent pesticide
11 poisoning. Líderes Campesinas has also worked with federal and state agencies and
12 other organizations and public service providers to achieve better results on rural
13 health issues. When necessary, and as here, Líderes Campesinas also engages in
14 public interest litigation to protect the interests of rural farmworkers and
15 communities. Líderes Campesinas and its members are being, and will be,
16 adversely affected by EPA's continued failure to complete testing of all pesticide
17 chemicals for endocrine effects.

18 23. Plaintiff **Center for Food Safety** (CFS) is a nationwide nonprofit
19 organization with offices in San Francisco, California, Portland, Oregon, and
20 Washington, DC. Founded in 1997, CFS's mission is to empower people, support
21 farmers, and protect the earth from the harmful impacts of industrial agriculture.
22 CFS has over a million members, including members in every state across the
23 country, including many thousands of conservationists, consumers, and farmers.
24 CFS and its members are being, and will be, adversely affected by EPA's failure to
25 implement the EDSP by the August 1999 statutory deadline and by EPA's
26 continuing failure to test all pesticide chemicals for possible endocrine effects
27 despite being required by law to do so.

1 24. CFS combines myriad tools and strategies in pursuing its goals,
2 including public education, grassroots organizing and campaigns, media, outreach,
3 and when necessary public interest litigation and/or legal rulemaking petitions.
4 CFS's membership action alerts also generate public education and engagement
5 with governmental officials on issues related to addressing the health and
6 environmental impacts of industrial agriculture, and promoting a healthier, more
7 sustainable food system. Collectively, the dissemination of this material makes CFS
8 an information clearinghouse for public involvement and governmental oversight of
9 all aspects of industrial agriculture, including pesticides.

10 25. Since its inception twenty-five years ago CFS has had a flagship
11 program on pesticides and their impacts on humans and other wildlife, with
12 multiple staff—science, policy, campaign, and legal. CFS's pesticide program has
13 long advocated for rigorous, science-based safety testing and proper regulation of
14 pesticide product uses, including timely review of the possible health risks posed by
15 pesticides. CFS has commented on numerous agency actions for pesticides,
16 submitted petitions to agencies, and when necessary litigated myriad public
17 interest cases to prevent harm to the environment and human health.

18 26. Plaintiffs' members are farmworkers and farmers that work with crops
19 sprayed with pesticides EPA has identified as possible endocrine disruptors, rural
20 residents who live in areas with heavy pesticide use, and consumers who routinely
21 ingest such crops. Many are concerned about the health risks posed to them and
22 their families by the pesticides EPA has already recognized as potential endocrine
23 disruptors and those EPA will one day recognize as endocrine disruptors. Other
24 members have dedicated interests in observing and protecting sensitive wildlife,
25 including species exposed to the pesticides EPA has recognized as having potential
26 endocrine effects on wildlife. The interests of Plaintiffs and their members are
27
28

1 continuing to be harmed by EPA’s failure to implement the EDSP and complete
2 endocrine testing of all pesticide chemicals.

3 ***Defendants***

4 27. Under the FQPA, Defendant EPA is charged with the implementation
5 of the EDSP and the testing of all pesticide chemicals for endocrine effects.

6 28. Defendant Michael Regan is sued in his official capacity as
7 Administrator of the EPA. As Administrator, Mr. Regan has ultimate responsibility
8 for EPA’s activities and policies.

9 29. Mr. Regan and EPA are collectively referred to herein as EPA or the
10 agency.

11 **STATUTORY BACKGROUND**

12 ***Administrative Procedure Act***

13 30. Pursuant to the APA, “[a] person suffering legal wrong because of
14 agency action, or adversely affected or aggrieved by agency action . . . is entitled to
15 judicial review thereof.” 5 U.S.C. § 702.

16 31. “Agency action” is defined to include not just affirmative agency action
17 but also—as the case here—the “failure to act,” *Id.* § 551(13).

18 32. Pursuant to the APA, a reviewing court “shall compel agency action
19 unlawfully withheld or unreasonably delayed.” *Id.* § 706(1).

20 ***Food Quality Protection Act***

21 33. The FQPA aims to regulate pesticides more robustly to safeguard
22 human health, particularly the health of children and infants. The EDSP and other
23 endocrine disruptor provisions of the FQPA contribute to this objective by screening
24 pesticide chemicals for possible endocrine impacts and mandating protective action
25 when such impacts exist.

26 34. The FQPA requires EPA to develop the endocrine disruptor screening
27 program “using appropriate validated test systems and other scientifically relevant
28

1 information, to determine whether certain substances may have an effect in
2 humans that is similar to an effect produced by a naturally occurring estrogen” no
3 later than August 3, 1998. 21 U.S.C. § 346a(p)(1).

4 35. Pursuant to the FQPA, EPA “shall implement the [endocrine disruptor
5 screening] program” no later than August 3, 1999. *Id.* § 346a(p)(2).

6 36. The FQPA dictates that in carrying out the EDSP, EPA “shall provide
7 for the testing of all pesticide chemicals” and “may provide for the testing of any
8 other substance that may have an effect that is cumulative to an effect of a pesticide
9 chemical if [EPA] determines that a substantial population may be exposed to such
10 substance.” *Id.* § 346a(p)(3).

11 37. The FQPA, also requires EPA submit a report to congress no later than
12 August 3, 2000, including EPA’s “findings . . . from the [EDSP][.]”
13 “recommendations for further testing[.]” and “recommendations for any further
14 action.” *Id.* § 346a(p)(7).

15 38. Per the FQPA, EPA “shall issue” orders “to conduct testing in
16 accordance with the [EDSP]” to registrants, manufacturers, or importers of
17 chemicals for which testing is required. These people will then “submit [the]
18 information obtained from the testing to the [EPA]” within a time period that EPA
19 determines to be reasonable. *Id.* § 346a(p)(5)(A).

20 39. Finally, when any substance is found to have an endocrine effect on
21 humans, the FQPA requires that EPA “as appropriate, take action under such
22 statutory authority as is available to [it] . . . as is necessary to ensure the protection
23 of public health.” *Id.* § 346a(p)(6).

STATEMENT OF THE FACTS

The Science of Endocrine Disruption

40. The endocrine system, also known as the hormone system, regulates the biological processes underpinning the growth, development and normal functioning of humans and other higher organisms, from conception to old age.⁵

41. The endocrine system is composed of hormones, chemical messengers that instruct the body what to do and when to do it; glands located throughout the body that produce the hormones and release them into the bloodstream; and receptors in organs that recognize hormones and carry out their instructions.⁶

42. Roughly thirty glands, including the hypothalamus, pituitary, thyroid, and adrenals, produce hormones that control and regulate nearly every process in the human body, including metabolism, growth and development, emotions and mood, fertility and sexual function, sleep, blood sugar levels, and blood pressure.⁷

43. For example, hormones known as androgens, produced by the testicles, and estrogens, created by the ovaries, are responsible for male and female sexual characteristics and development. The thyroid gland secretes thyroxine and triiodothyronine, hormones that regulate metabolism, the process of extracting energy from the foods we eat, and also help regulate growth and development. The pancreas produces the hormones insulin and glucagon, which work to maintain a constant level of sugar in the bloodstream.⁸

⁵ *What is the Endocrine System?*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/endocrine-disruption/what-endocrine-system> (last visited Dec. 19, 2022) [hereinafter EPA Endocrine System]; *Endocrine System*, CLEVELAND CLINIC, <https://my.clevelandclinic.org/health/articles/21201-endocrine-system> (last visited Dec. 19, 2022) [hereinafter Cleveland ED].

⁶ EPA Endocrine System, *supra* note 5.

⁷ Mary Sue Marty et al., *Endocrine Disruption: Historical Perspectives and Its Impact on the Future of Toxicology Testing*, 120 TOXICOLOGICAL SCIENCES 93, 93 (2011); Cleveland ED, *supra* note 5.

⁸ EPA Endocrine System, *supra* note 5.

1 44. Endocrine disruptors are chemicals that interfere with the operation of
2 the endocrine system, and they can do this in various ways. Some chemicals mimic
3 a natural hormone and thus cause the body to overreact or react at the wrong time.
4 Others block a hormone from binding to its intended receptor, resulting in a lack of
5 the desired response. Still other endocrine disruptors stimulate or inhibit the
6 endocrine system, causing over or under production of particular hormones.⁹

7 45. As the EPA acknowledges, scientific research has linked chemical
8 disruption of the endocrine system to adverse health consequences in humans,
9 domestic animals, and fish and wildlife species.¹⁰

10 46. These effects include “developmental malformations, interference with
11 reproduction, increased cancer risk, and disturbances in immune and nervous
12 system function.”¹¹

13 47. The Endocrine Society, a global community of physicians and scientists
14 at the forefront of hormone science, has published two exhaustive reviews of studies
15 on endocrine-disrupting chemicals. The 2015 review, which is 150 pages, discusses
16 over 1,300 studies that collectively have linked endocrine disrupting chemicals to
17 numerous adverse human health outcomes including, but not limited to, alterations
18 in sperm quality and fertility, abnormalities in sex organs, endometriosis, early
19 puberty, altered nervous system function, disrupted immune function, different
20
21

22
23 ⁹ *What is Endocrine Disruption?*, U.S. Env’t Prot. Agency,
24 <https://www.epa.gov/endocrine-disruption/what-endocrine-disruption> (last
25 visited Dec. 19, 2022) [hereinafter EPA Endocrine Disruption].

26 ¹⁰ *Id.* (“Growing scientific evidence shows that humans, domestic animals, and fish
27 and wildlife species have exhibited adverse health consequences from exposure
28 to environmental chemicals that interact with the endocrine system.”); EPA
Endocrine System, *supra* note 5.

¹¹ EPA Endocrine Disruption, *supra* note 9.

1 kinds of cancers, respiratory issues, metabolic abnormalities, diabetes, obesity,
2 cardiovascular problems, and growth, neurological and learning disabilities.¹²

3 48. Research also demonstrates that exposure to endocrine disrupting
4 chemicals is particularly detrimental at critical developmental windows, such as
5 fetal development and infancy.¹³

6 49. Further, both natural hormones and endocrine-disrupting chemicals
7 are extraordinarily potent, with infinitesimal amounts capable of either triggering
8 the desired response, or disrupting it, respectively. In fact, scientists find that
9 endocrine disruptors exert their effects at levels far below the amounts tested in
10 traditional toxicology studies, levels that approximate the amounts to which people
11 are exposed.¹⁴

12 50. People are exposed to endocrine disruptors through drinking
13 contaminated water, breathing contaminated air, ingesting contaminated food, or
14 contacting contaminated soils. Those working with endocrine-disrupting pesticides
15 and other industrial chemicals, as well as those working and/or living in areas
16 sprayed with endocrine-disrupting pesticides, generally bear the most risk, given
17 their high level of potential exposures.¹⁵

18 ¹² Endocrine Society, *supra* note 4; *see also* Gore, *supra* note 4.

19 ¹³ *Endocrine-Disrupting Chemicals: An Endocrine Society Position Statement*,
20 ENDOCRINE SOCIETY (May 1, 2018), <https://www.endocrine.org/advocacy/position-statements/endocrine-disrupting-chemicals#:~:text=The%20Endocrine%20Society%20is%20concerned,protect%20populations%20from%20EDC%20exposures> [hereinafter ES Position Statement].

21 ¹⁴ *See generally* Laura N. Vandenberg et al., *Hormones and Endocrine-Disrupting Chemicals: Low-Dose Effects and Nonmonotonic Dose Responses*, 33 ENDOCRINE
22 REV. 378 (2012), <https://academic.oup.com/edrv/article/33/3/378/2354852>.

23 ¹⁵ Evanthia Diamanti-Kandarakis et al., *Endocrine-Disrupting Chemicals: An Endocrine Society Scientific Statement*, 30 ENDOCRINE REV. 293 (2009),
24 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2726844/>; *see also* Thomas P. van
25 der Meer et al., *Exposure to Endocrine Disrupting Chemicals in the Dutch
26 general population is associated with adiposity-related traits*, SCIENTIFIC
27 REPORTS (June 9, 2020), <https://www.nature.com/articles/s41598-020-66284-3>.

1 51. DDT, chlorpyrifos, atrazine, 2,4-D, and glyphosate are among the
2 pesticides recognized as endocrine disruptors.¹⁶

3 52. Growing evidence suggests that exposure to endocrine disrupting
4 chemicals is linked to an increase over the past few decades in the incidence of
5 neurodevelopmental, reproductive, and metabolic disorders, as well as certain
6 cancers.¹⁷

7 53. Congress's willingness to mandate the creation of the EDSP and the
8 testing of all pesticide chemicals for possible endocrine effects back in 1996 was
9 based on firm scientific evidence of the serious threats endocrine disruptors pose to
10 public health; and the evidence has only grown stronger over the past quarter
11 century.

12 54. The endocrine disrupting capabilities of pesticides and other chemicals
13 are also recognized as threats to a wide variety of wildlife, potentially contributing
14 to species declines.¹⁸ Similar to humans, endocrine disrupting pesticides can
15

16 ¹⁶ Heather Patisaul, *Hormones and Endocrine Disrupting Chemicals: What You*
17 *Need To Know*, ENDOCRINE SOC'Y, [https://www.endocrine.org/-](https://www.endocrine.org/-/media/endocrine/files/patient-engagement/hormones-and-series/hormones_and_edcs_what_you_need_to_know.pdf)
18 [/media/endocrine/files/patient-engagement/hormones-and-](https://www.endocrine.org/-/media/endocrine/files/patient-engagement/hormones-and-series/hormones_and_edcs_what_you_need_to_know.pdf)
[series/hormones_and_edcs_what_you_need_to_know.pdf](https://www.endocrine.org/-/media/endocrine/files/patient-engagement/hormones-and-series/hormones_and_edcs_what_you_need_to_know.pdf) (last visited Dec. 19,
2022).

19 ¹⁷ ES Position Statement, *supra* note 13.

20 ¹⁸ *See, e.g.,* Vance L. Trudeau et al., *Agrochemicals disrupt multiple endocrine axes*
21 *in amphibians*, 513 MOLECULAR & CELLULAR ENDOCRINOLOGY 1 (2020),
22 [https://digital.csic.es/bitstream/10261/214982/1/Agrochemicals%20disrupt%20m](https://digital.csic.es/bitstream/10261/214982/1/Agrochemicals%20disrupt%20multiple%20endocrine%20axes%20in%20amphibians.pdf)
23 [ultiple%20endocrine%20axes%20in%20amphibians.pdf](https://digital.csic.es/bitstream/10261/214982/1/Agrochemicals%20disrupt%20multiple%20endocrine%20axes%20in%20amphibians.pdf); *see generally* Zaheer
24 Khan & Francis Law, *Adverse effects of pesticides and related chemicals on*
25 *enzyme and hormone systems of fish, amphibians, and reptiles: A review*. 42
26 PROC. PAKISTAN ACAD. SCI. 315 (2005),
27 [https://www.researchgate.net/profile/Francis-](https://www.researchgate.net/profile/Francis-Law/publication/241312982_Adverse_effects_of_pesticides_and_related_chemicals_on_enzyme_and_hormone_systems_of_fish_amphibians_and_reptiles_A_review/links/544681c20cf22b3c14de358b/Adverse-effects-of-pesticides-and-related-chemicals-on-enzyme-and-hormone-systems-of-fish-amphibians-and-reptiles-A-review.pdf)
28 [Law/publication/241312982_Adverse_effects_of_pesticides_and_related_chemical](https://www.researchgate.net/profile/Francis-Law/publication/241312982_Adverse_effects_of_pesticides_and_related_chemicals_on_enzyme_and_hormone_systems_of_fish_amphibians_and_reptiles_A_review/links/544681c20cf22b3c14de358b/Adverse-effects-of-pesticides-and-related-chemicals-on-enzyme-and-hormone-systems-of-fish-amphibians-and-reptiles-A-review.pdf)
[s_on_enzyme_and_hormone_systems_of_fish_amphibians_and_reptiles_A_revie](https://www.researchgate.net/profile/Francis-Law/publication/241312982_Adverse_effects_of_pesticides_and_related_chemicals_on_enzyme_and_hormone_systems_of_fish_amphibians_and_reptiles_A_review/links/544681c20cf22b3c14de358b/Adverse-effects-of-pesticides-and-related-chemicals-on-enzyme-and-hormone-systems-of-fish-amphibians-and-reptiles-A-review.pdf)
[w/links/544681c20cf22b3c14de358b/Adverse-effects-of-pesticides-and-related-](https://www.researchgate.net/profile/Francis-Law/publication/241312982_Adverse_effects_of_pesticides_and_related_chemicals_on_enzyme_and_hormone_systems_of_fish_amphibians_and_reptiles_A_review/links/544681c20cf22b3c14de358b/Adverse-effects-of-pesticides-and-related-chemicals-on-enzyme-and-hormone-systems-of-fish-amphibians-and-reptiles-A-review.pdf)
[chemicals-on-enzyme-and-hormone-systems-of-fish-amphibians-and-reptiles-A-](https://www.researchgate.net/profile/Francis-Law/publication/241312982_Adverse_effects_of_pesticides_and_related_chemicals_on_enzyme_and_hormone_systems_of_fish_amphibians_and_reptiles_A_review/links/544681c20cf22b3c14de358b/Adverse-effects-of-pesticides-and-related-chemicals-on-enzyme-and-hormone-systems-of-fish-amphibians-and-reptiles-A-review.pdf)
[review.pdf](https://www.researchgate.net/profile/Francis-Law/publication/241312982_Adverse_effects_of_pesticides_and_related_chemicals_on_enzyme_and_hormone_systems_of_fish_amphibians_and_reptiles_A_review/links/544681c20cf22b3c14de358b/Adverse-effects-of-pesticides-and-related-chemicals-on-enzyme-and-hormone-systems-of-fish-amphibians-and-reptiles-A-review.pdf).

1 interfere with an animal's hormones, causing a wide range adverse effects
2 including, but not limited to: abnormal sexual development, including feminization
3 seen in fish and amphibians, behavioral impacts, development impacts, disruption
4 of immune function and neurological functions, and physical deformities. While
5 aquatic animals appear to be at particularly high risk of exposure to and impacts
6 from endocrine disrupting pesticides, terrestrial animals, including insects such as
7 bees, may also be harmed by endocrine disruption of pesticides.¹⁹

8 55. All in all, endocrine disrupting chemicals pose enormous risks to the
9 health of both humans and wildlife and the chemicals posing such risks must be
10 promptly identified and mitigated.

11 ***The Food Quality Protection Act***

12 56. The Federal, Food, Drug, and Cosmetic Act (FFDCA) requires federal
13 agencies to regulate foods, drugs, and cosmetics to ensure their safety.²⁰ For
14 pesticides registered for use in food production, the Act directs the EPA to establish
15 allowable pesticide residue levels, referred to as tolerances, in food and animal
16 feed.²¹

17 57. In 1996, Congress amended the FFDCA via the Food Quality
18 Protection Act (FQPA).²² The FQPA enacted sweeping changes to both the FFDCA
19 and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

21 ¹⁹ See, e.g., Danica Baines et al., *Neonicotinoids act like endocrine disrupting*
22 *chemicals in newly-emerged bees and winter bees*, SCIENTIFIC REPORTS, Sept.
23 2017, at 1, <https://www.nature.com/articles/s41598-017-10489-6>; see generally
24 Peter L deFur, *Use and Role of Invertebrate Models in Endocrine Disruptor*
Research and Testing, 45 INST. LABORATORY ANIMAL RES. J. 484 (2004),
<https://academic.oup.com/ilarjournal/article/45/4/484/661247>.

25 ²⁰ Federal Food Drug and Cosmetic Act, 21 U.S.C. § 301–399.

26 ²¹ *Id.* § 346a.

27 ²² Food Quality Protection Act of 1996, P.L. 104-170, 110 Stat. 1533 (1996) (codified
as amended in scattered sections of 21 U.S.C. § 301 et seq.).

1 58. The FQPA was designed to standardize the way EPA managed
2 pesticides and to update the U.S. laws to protect public health in accordance with
3 the most recent scientific evidence. It mandated a single, health-based safety
4 standard for pesticide residue in all foods; provided special protections for infants
5 and children via an additional safety factor that accounts for children’s special
6 sensitivity to pesticide chemicals; and required periodic re-evaluation of pesticide
7 registrations and tolerances to ensure pesticide registrations continue to meet
8 federal safety standards, amongst other things.

9 ***FQPA Provisions Specific to Endocrine Disruption***

10 59. In response to the growing body of science showing that exposure to
11 pesticides adversely affects the health of humans and wildlife via endocrine
12 disruption, as well as a number of other events, including but not limited to a
13 National Academy of Science report examining pesticides in children’s diets, the
14 BBC documentary, “Assault on the Male”, explaining causes of reduced male
15 fertility, and the newly published *Our Stolen Future*, chronicling how certain
16 synthetic chemicals interfere with hormones, Congress also included provisions
17 regarding estrogenic substances in the FQPA.²³ Congress explicitly stated “scientific
18 reports indicat[e] that some pesticides may imitate, enhance, or block the activity of
19 hormones in humans and wildlife . . . Since hormones govern fundamental biological
20 functions such as reproduction, growth, and metabolism in humans and other
21 species, the Committee believes that it is important for EPA to obtain data about
22 the potential hormone-disrupting effects of pesticides in order to make informed
23 regulatory decisions under FIFRA.”²⁴

24
25
26 ²³ *Id.*; Maffini & Vandenberg, *supra* note 2, at 1–2.

27 ²⁴ H.R. REP. 104-669, pt. 1, at 56 (1996).

1 60. These provisions require EPA to take several steps in order to evaluate
2 the link between pesticide chemicals and possible endocrine disruption.²⁵

3 61. First, by no later than August 3, 1998, the FQPA required EPA to
4 “develop a[n] [endocrine disruptor] screening program, using appropriate validated
5 test systems and other scientifically relevant information, to determine whether
6 certain substances may have an effect in humans that is similar to an effect
7 produced by naturally occurring estrogen, or such other endocrine effect as the
8 [EPA] may designate.” *See* 21 U.S.C. § 346a(p)(1).

9 62. Second, EPA must then “implement the [endocrine disruptor
10 screening] program” no later than August 3, 1999. *Id.* § 346a(p)(2).

11 63. Third, the FQPA mandates that in carrying out the EDSP, EPA
12 “provide for the testing of all pesticide chemicals.” *Id.* § 346a(p)(3)(a).

13 64. Finally, the FQPA requires that EPA “as appropriate, take action
14 under such statutory authority as is available to [it] . . . as is necessary to ensure
15 the protection of public health” when any substance is found to have endocrine
16 effects on humans.” *Id.* § 346a(p)(6).

17 ***EPA’s Endocrine Disruptor Screening Program***

18 65. Following the enactment of the FQPA, EPA initially took some action
19 with regard to the Congressional mandates; however, as will be discussed in detail
20 below, such action was short lived, and the agency has otherwise failed for over two
21 decades to comply with Congress’s commands.

22 66. In October of 1996, the EPA created the Endocrine Disruptor
23 Screening and Testing Advisory Committee (EDSTAC), a group of representatives
24 from industry, government, environmental and public health groups, worker safety
25 groups, and academia, to advise EPA on developing an endocrine disruptor

26
27 ²⁵ *See* 21 U.S.C. § 346a(p).

1 screening program. EDSTAC was “charged with developing consensus-based
2 recommendations for a scientifically defensible screening program that would
3 provide EPA the necessary information to make regulatory decisions about the
4 endocrine effects of chemicals.”²⁶

5 67. For two years EDSTAC members reviewed scientific information,
6 sought the opinions of outside experts, and consulted members of the public.
7 Ultimately, the committee recommended that EPA’s endocrine disruptor screening
8 program should evaluate ecological effects in addition to human effects; initially
9 test for disruption of just the three most-studied hormone systems (estrogen,
10 androgen, and thyroid), but later incorporate tests for effects on more of the fifty
11 hormone systems; evaluate non-pesticide chemicals (commercial chemicals,
12 ingredients in cosmetics, nutritional supplements, and food additives) in addition to
13 pesticide chemicals; screen six distinct mixtures representative of two or more
14 chemicals to determine whether they cause endocrine effects different than the
15 component chemicals; and implement a tiered approach.²⁷

16 68. EPA adopted EDSTAC’s recommendations and created the EDSP in
17 August of 1998.²⁸

18 69. On EDSTAC’s recommendation, EPA separated the EDSP into several
19 stages. The first is a priority setting stage: a stage in which EPA must decide, based
20 on existing information, which chemicals most urgently need testing based on their
21

22 ²⁶ *Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC) Final*
23 *Report*, ENV’T PROT. AGENCY, [https://www.epa.gov/endocrine-](https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-and-testing-advisory-committee-edstac-final)
24 [disruption/endocrine-disruptor-screening-and-testing-advisory-committee-](https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-and-testing-advisory-committee-edstac-final)
25 [edstac-final](https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-and-testing-advisory-committee-edstac-final) (last visited Dec. 19, 2022).

26 ²⁷ *Id.*; Endocrine Disruptor Screening Program, 63 Fed. Reg. 7152, 71545 (Dec. 28,
27 1998); *see also* ENDOCRINE DISRUPTOR SCREENING AND TESTING ADVISORY
28 COMMITTEE (EDSTAC) FINAL REPORT ES-3 (AUG. 1998) [hereinafter EDSTAC
Final Report].

²⁸ Endocrine Disruptor Screening Program, 63 Fed. Reg. 42852 (Aug. 11, 1998).

1 likelihood to affect the endocrine system. Following priority setting, chemicals
2 undergo a screening stage. The screening stage consists of two tiers of testing and
3 evaluates each chemical to determine whether it is an endocrine disruptor.²⁹

4 70. Per the EDSP, Tier 1 testing is an initial screen, through which EPA
5 determines whether a chemical is a potential endocrine disruptor. If EPA finds a
6 chemical potentially disrupts the endocrine system—more specifically the estrogen,
7 androgen, or thyroid signaling pathways—the chemical must then be tested under
8 the more rigorous Tier 2 testing.³⁰

9 71. Tier 2 testing is intended to identify the adverse effects caused by the
10 substance and establish “a quantitative relationship between the dose and the
11 adverse effect[,]” essentially conducting a risk assessment for chemicals determined
12 to be endocrine disruptors.³¹

13 72. In practice, however, EPA will often both identify a pesticide as an
14 endocrine disruptor, and establish a quantitative dose-effect relationship, based on
15 Tier 1 tests, but still eschew the more rigorous and definitive Tier 2 testing
16 altogether.³² For instance, EPA found the pesticide atrazine exerted effects on both
17 estrogen and androgen systems at particular doses based on Tier 1 screening tests,
18 but nevertheless decided against Tier 2 tests. This approach raises even more
19 questions about the efficacy of the EDSP.

20 73. As is noted above, per the FQPA, in the event a chemical is found to be
21 an endocrine disruptor, EPA is required to take appropriate action to ensure the
22 protection of public health. *See* 21 U.S.C. § 346a(p)(6).

24 ²⁹ Endocrine Disruptor Screening Program, 63 Fed. Reg. at 71544.

25 ³⁰ *Id.*

26 ³¹ *Id.* at 71543; 71545.

27 ³² ENV'T PROT. AGENCY, ATRAZINE WEIGHT OF EVIDENCE ANALYSIS (JUL. 2015),
<https://www.regulations.gov/document/EPA-HQ-OPP-2013-0266-0313>.

1 74. Also key to the EDSP is the screen (or assay) validation process. Assay
2 validation establishes a test's reliability, ensuring it can achieve its intended
3 purpose and be performed consistently across different laboratories.³³ The FQPA
4 mandates that all tests and screens be validated prior to use. *See* 21 U.S.C. §
5 346a(p)(1). While the EPA's 1998 published EDSP included specific assays, none
6 were validated at the time of the program's publication, thus creating another
7 required step before testing could begin.

8 75. Shortly following EPA's creation of the EDSP, EPA released an
9 overview of how it planned to implement the EDSP moving forward, estimating Tier
10 1 testing for select chemicals would begin in 2003, following validation of assays
11 used for Tier 1 testing.³⁴ This proved to be just the beginning of EPA's empty
12 promises and failures regarding the EDSP.

13 ***EPA's Progress (or lack thereof) to Date***

14 76. Since the creation of the EDSP in 1998, EPA's steps towards
15 implementing the EDSP have been few and far between, with a complete failure to
16 act on the EDSP program since August of 2015.

17 77. EPA has repeatedly made empty promises and proposed timelines with
18 regard to accomplishing various aspects of EDSP development and implementation,
19 including assay validation, Tier 1 and 2 testing, and more. EPA failed to keep most
20 of these promises, and those it has managed to keep have often been years late.

21 78. EPA provided their own timeline for beginning implementation in a
22 Federal Register notice in December of 1998, shortly after creation of the EDSP. It
23

24 ³³ ENV'T PROT. AGENCY, ENVIRONMENTAL PROTECTION AGENCY ENDOCRINE
25 DISRUPTOR SCREENING PROGRAM: REPORT TO CONGRESS 1 (2000),
26 [https://www.epa.gov/sites/default/files/2015-
12/documents/reporttocongress0800.pdf](https://www.epa.gov/sites/default/files/2015-12/documents/reporttocongress0800.pdf).

27 ³⁴ Endocrine Disruptor Screening Program, 63 Fed. Reg. at 71559.

1 estimated Tier 1 testing for the first batch of chemicals would begin in 2003,
2 following priority setting and validation of assays.³⁵

3 79. Despite consultation with the FIFRA scientific advisory board in 1999
4 and a recommendation by the board that EPA start implementation by reviewing
5 data for 50 to 100 pesticides using Tier 1 assays, EPA took no significant action in
6 the years that followed.³⁶ In fact, it took a lawsuit by Natural Resources Defense
7 Council (NRDC) and a subsequent settlement agreement with agreed upon
8 deadlines for EPA to begin any real progress in developing the EDSP.³⁷

9 80. In August of 1999, NRDC sued EPA for failing to meet their August
10 1999 statutory deadline to implement the EDSP.³⁸ The lawsuit ended in a
11 settlement agreement in 2001, in which NRDC agreed to dismiss their cause of
12 action and EPA committed to use best efforts to implement the EDSP in a number
13 of ways by several new deadlines, as well as to submit progress reports directly to
14 NRDC.³⁹

15 81. EPA committed to publishing a list of initial chemicals to evaluate by
16 2002. Instead, EPA released a draft list of chemicals for evaluation in 2007 and a
17 final list of 67 chemicals (referred to as List 1) in 2009, seven years after their
18 original promise.⁴⁰

21 ³⁵ *Id.*

22 ³⁶ Maffini & Vandenberg, *supra* note 2, at 4.

23 ³⁷ *Endocrine Disruptor Screening Program* Timeline, ENV'T PROT. AGENCY,
24 <https://www.epa.gov/sites/default/files/2016-04/documents/edsp-timeline-042016.pdf> (last visited Nov. 7, 2022) [hereinafter EDSP Timeline]

25 ³⁸ *Natural Resources Defense Council v. Whitman*, 2001 WL 1221774 (N.D. Cal.
26 Sept. 24, 2001).

27 ³⁹ *Settlement Agreement, Natural Resources Defense Council v. Whitman*, 2001 WL
28 1221774 (N.D. Cal. Sept. 24, 2001) (No. C-99-3701) [hereinafter NRDC-EPA
Settlement Agreement].

⁴⁰ *Id.*; EDSP Timeline, *supra* note 37.

1 82. EPA promised to validate all but one of the Tier 1 assays and begin
2 Tier 1 testing by 2003. However, EPA did not complete validation of Tier 1 assays
3 and did not issue Tier 1 test orders for List 1 chemicals until 2009, six years later
4 than originally promised. Further, it was not until 2015 that EPA released
5 screening results of these Tier 1 test orders, but—despite a finding that eighteen of
6 the List 1 chemicals necessitated Tier 2 testing—to date no such testing has
7 occurred.⁴¹

8 83. EPA additionally committed to validating the mammalian 2-
9 generation Tier 2 assay and beginning Tier 2 testing of the List 1 chemicals by
10 2004, with validation of all other Tier 2 assays to be completed by 2005. But EPA
11 did not validate and finalize Tier 2 assays until 2015, 10 years late.⁴²

12 84. In addition to failing to meet the court-imposed deadlines with regard
13 to development and implementation of the EDSP over the past two decades, EPA
14 also failed to meet deadlines imposed by the House Appropriations Committee (the
15 Committee), as well as those the agency itself laid out in EDSP comprehensive
16 management plans and in response to Office of the Inspector General Reports
17 criticizing EPA's progress on the EDSP.

18 85. Specifically, when Congress appropriated additional funding to the
19 EDSP in 2008 and 2010, it directed EPA to take specific actions for the EDSP by
20 dates certain. These appropriations further show Congress's plain and continuing
21 intent that EPA actually implement this important program, yet nonetheless EPA
22 has still failed to so act.

25 ⁴¹ EDSP Timeline, *supra* note 37; NRDC-EPA Settlement Agreement, *supra* note
26 39.

27 ⁴² EDSP Timeline, *supra* note 37; NRDC-EPA Settlement Agreement, *supra* note
28 39.

1 86. In the 2008 appropriations report, the Committee required EPA to
2 report annually to Congress on its progress in implementing the EDSP. Specifically,
3 EPA was to update Congress on: the number of pesticides EPA conducted or
4 required testing for; the number EPA has made a determination for; the number
5 and identity of screening and testing assays EPA has and has not validated; and the
6 reason why for those EPA has not validated.⁴³ EPA submitted reports to Congress
7 in 2008, 2009, and 2010; however, EPA has not formally reported to Congress since
8 2010.⁴⁴

9 87. Additionally, the Committee’s 2010 appropriations report “direct[ed]
10 EPA to . . .[p]ublish [by June 2011] a second list of no less than 100 chemicals for
11 screening. . . and issue 25 orders per year for the testing of [List 2] chemicals.”⁴⁵ But
12 EPA did not publish a second list of chemicals (referred to as List 2) until two years
13 after the deadline and to date, EPA has not issued a single test order for any of the
14 List 2 chemicals, despite appearing to have been ready and able to so act.⁴⁶
15 Government documents received through the Freedom of Information Act reveal
16 that EPA employees stated “EDSP was ready to go with List 2, but [EPA] lacked the
17 institutional will to follow through with issuing test orders for List 2 – Tier 1.”⁴⁷
18 Further, EPA staff attest that EPA likely will not issue test orders for List 2 now as
19 the list has become “stale” given the delay.⁴⁸ They explained that the list was meant
20

21 ⁴³ H.R. REP. NO. 110-187, pt. 1, at 108–09 (2008) [hereinafter *2008 Appropriations*
22 *Report*].

23 ⁴⁴ See *Endocrine Disruptor Screening Program Reports to Congress*, ENV’T PROT.
24 AGENCY, [https://www.epa.gov/endocrine-disruption/endocrine-disruptor-](https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-program-reports-congress)
25 [screening-program-reports-congress](https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-program-reports-congress) (last visited Dec. 19, 2022).

26 ⁴⁵ H.R. REP. NO. 111-180, at 105–06 (2010) [hereinafter *2010 Appropriations Report*].

27 ⁴⁶ EDSP Timeline, *supra* note 37.

28 ⁴⁷ Interviews Conducted in Preparation of the 2021 OIG Report, at 13 (received via
a FOIA request, attached as Exhibit A).

⁴⁸ *Id.* at 16.

1 to line up with registration review for the pesticides on the list, and that now is no
2 longer possible given the testing delay.⁴⁹

3 ***Inspector General Investigations and Reports***

4 88. The Office of Inspector General, an independent unit within the EPA,
5 reviewed the EDSP in 2011 and 2021, both times finding EPA had made little
6 progress with the EDSP.⁵⁰

7 89. With the first report, EPA's Inspector General (IG) aimed to gauge
8 whether EPA "ha[d] planned and conducted the requisite research and testing to
9 evaluate and regulate" endocrine disrupting chemicals. The report's conclusions
10 were harshly critical, grimly concluding the EDSP had made little progress in
11 identifying endocrine disruptors, due in large part to EPA's lack of management
12 and that the protection of human health would not be achieved until the
13 establishment of program control and accountability.⁵¹

14 90. The IG recommended that EPA establish the scope of chemicals
15 included in the EDSP, develop standardized methods to prioritize the chemicals for
16 screening and testing, finalize criteria for evaluation of Tier 1 and Tier 2 screening
17 results, develop outcome performance measures, develop a comprehensive
18 management plan to cover a 5-year period for the EDSP, and finally, complete
19 annual internal reviews of EDSP progress.⁵²

20
21 ⁴⁹ Plaintiffs dispute this conclusion by EPA because registration review for nearly
22 all pesticides remains incomplete. Such excuse should not allow EPA to avoid
23 completing Tier 1 and 2 testing for List 2.

24 ⁵⁰ EPA's ENDOCRINE DISRUPTOR SCREENING PROGRAM SHOULD ESTABLISH
25 MANAGEMENT CONTROLS TO ENSURE MORE TIMELY RESULTS, OFF. OF INSPECTOR
26 GEN., ENV'T PROT. AGENCY (May 2011) [hereinafter *2011 OIG Report*]; EPA's
27 ENDOCRINE DISRUPTOR SCREENING PROGRAM HAS MADE LIMITED PROGRESS IN
28 ASSESSING PESTICIDES, OFF. OF INSPECTOR GEN., ENV'T PROT. AGENCY (July 2021)
[hereinafter *2021 OIG Report*].

⁵¹ See generally *2011 OIG Report*, supra note 50.

⁵² *Id.* at 19–20.

1 91. EPA dismissed some of the recommendations as having already been
2 implemented, or as irrelevant until further assay validation, and failed to respond
3 to others. However, EPA agreed to develop a comprehensive management plan by
4 2012 per the IG's recommendations.⁵³ While EPA followed through on this promise
5 by publishing comprehensive management plans in 2012 and 2014, it entirely
6 flouted the IG's intended purpose of the comprehensive management plans by
7 failing to actually adhere to the targets outlined within those plans.⁵⁴

8 92. The 2014 comprehensive management plan superseded the 2012 plan,
9 with many of the goals outlined in the 2012 comprehensive management plan
10 simply being restated with drawn out target dates in the 2014 plan. Despite having
11 already allowed itself more time to complete various tasks, the EPA still failed to
12 adhere to those drawn-out timelines set in the 2014 comprehensive management
13 plan.⁵⁵

14 93. Within the 2014 comprehensive management plan, EPA outlined
15 milestones for the EDSP that it planned to meet between 2014 and 2023.⁵⁶ EPA
16 planned to conduct Tier 2 testing of List 1 chemicals between 2014-2015 and
17 complete risk assessments for List 1 in 2020. EPA planned to conduct Tier 1 tests of
18 List 2 chemicals between 2014-2016 and complete scientific review of those tests
19 between 2017-2019. EPA also planned to create List 3 and to complete Tier 1
20
21
22

⁵³ *Id.* at 23–26.

⁵⁴ OFF. OF CHEM. SAFETY AND POLLUTION PREVENTION & THE OFF. OF WATER, EPA, ENDOCRINE DISRUPTOR SCREENING PROGRAM COMPREHENSIVE MGMT. PLAN (2012) [hereinafter *2012 CMP*]; OFF. OF CHEM. SAFETY AND POLLUTION PREVENTION & THE OFF. OF WATER, EPA, ENDOCRINE DISRUPTOR SCREENING PROGRAM COMPREHENSIVE MGMT. PLAN 13 (2014) [hereinafter *2014 CMP*].

⁵⁵ *See 2012 CMP*, *supra* note 54, at 4–5; *see 2014 CMP*, *supra* note 54, at 6.

⁵⁶ *See 2014 CMP*, *supra* note 54, at 6.

1 testing for List 3 between 2018-2020.⁵⁷ Yet EPA has failed to meet *even a single one*
2 of these self-imposed targets and does not seem close to finishing any of these tasks.

3 94. While EPA was adamant that the 2014 comprehensive management
4 plan be a “living document” to be “evaluated on an annual basis,” EPA never
5 amended the original 2014 plan to account for delays; rather EPA simply failed to
6 meet all of their projected deadlines.⁵⁸ The 2014 comprehensive management plan
7 was only for use between FY 2014-2019, so EPA currently has no guiding plan for
8 the EDSP.

9 95. The IG’s second report findings were equally grim, noting EPA’s
10 continued lack of progress and concluding the program in its current state cannot
11 achieve the statutory requirement of safeguarding human health and the
12 environment against endocrine risks. Specifically, it found EPA “has not
13 implemented Section 408(p)(3)(A) of the [FFDCA] to test all pesticide chemicals for
14 endocrine disruption activity.” Further, it found EPA ‘s failure to complete testing
15 for the seventeen pesticides recommended for Tier 2 testing based on possible
16 wildlife endocrine effects was inconsistent with the FFDCA. It additionally
17 concluded EPA does not have adequate controls in place to effectively implement
18 the EDSP, has not conducted internal reviews to gauge progress, and has not
19 effectively communicated with internal and external stakeholders. Finally, it found
20 EPA had in large part failed to follow through the corrective actions it had promised
21 in response to the 2011 OIG recommendations.⁵⁹

22 96. In addition to its conclusions regarding EPA’s stalled progress with the
23 EDSP, the IG’s 2021 report included the shocking discovery that some EPA staff
24 were instructed to function as if the EDSP had been eliminated from the EPA’s

25 ⁵⁷ *Id.*

26 ⁵⁸ *Id.* at 3.

27 ⁵⁹ *See 2021 OIG Report, supra* note 50, at 8.

1 budget, despite a \$7.5 million allocation to the EDSP in 2021, when the program
2 had only four full-time staff members. One employee stated, “on multiple occasions,
3 I was directly instructed to adhere to the reality of zero funding in the President’s
4 budget even though we were fully funded by Congress.”⁶⁰ Such instruction
5 demonstrates an intentional flouting by the agency of its statutory duties.⁶¹

6 97. EPA agreed to certain actions in response to the IG’s 2021 report, as
7 with the 2011 report. The IG recommended EPA issue Tier 1 test orders for each of
8 the List 2 chemicals and EPA committed to doing so by September of 2024. The IG
9 recommended EPA issue Tier 2 test orders for the eighteen List 1 pesticides deemed
10 worthy of Tier 2 testing, EPA committed to doing so by December of 2023. The IG
11 further recommended EPA develop and implement an updated comprehensive
12 management plan by September of 2022, among other things.⁶² EPA committed to
13 publishing a new plan by September 30, 2022; however, no such comprehensive
14 management plan has been published as of the filing of this complaint.⁶³

15 98. In summary, over the course of two decades the IG has published two
16 different reports on EPA’s failure to implement the program, to which EPA has
17 responded and promised to take action. Yet the program still sits without
18 implementation and testing, and thus fails to meet its statutory purpose.

19
20
21
22
23 ⁶⁰ Interviews Conducted in Preparation of the 2021 OIG Report, *supra* note 47, at 6.

24 ⁶¹ See 2021 OIG Report, *supra* note 50, at 12–13.

25 ⁶² See Maffini & Vandenberg, *supra* note 2, at 6 for a complete list of the IG’s 2021
26 recommendations to EPA; see also 2021 OIG Report, *supra* note 50, at 15–16.

27 ⁶³ See 2021 OIG Report, *supra* note 50, at 23; see also *Endocrine Disruptor Screening
28 Program (EDSP) Comprehensive Management Plans*, ENV’T PROT. AGENCY (last
visited Dec. 19, 2022), [https://www.epa.gov/endocrine-disruption/endocrine-
disruptor-screening-program-edsp-comprehensive-management-plans](https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-program-edsp-comprehensive-management-plans).

The Assay Validation Roadblock

99. EPA’s general failure to meet timelines—whether imposed by Congress, a court, the Congressional Appropriations Committee, the IG, or self-imposed—is not the only cause for concern as to EPA’s duty to implement and carry out the EDSP. The agency’s preoccupation with focusing exclusively on developing new screening assays also seems to all but guarantee a lack of progress in actually *testing* chemicals. Congress has repeatedly urged EPA to adopt more efficient screens to hasten the process of testing chemicals for possible endocrine effects. In the 2010 report, the House Appropriations Committee “direct[ed] EPA to . . . [e]ngage in a timely re-evaluation of the battery of screening” to adopt more efficient screens.⁶⁴ Again, in 2012, the Committee “continue[d] to have concerns with the . . . [EDSP]’s slow progress and believe[d] it need[ed] additional guidance.” “In order to spur the agency to action,” the committee directed EPA to change their chemical screening tests in various ways to make them more efficient.⁶⁵ After more than a decade of such urging, EPA is still in the process of assessing and adopting these new screening tests.⁶⁶

100. In 2015 EPA published a notice in the Federal Register describing a more efficient way to screen chemicals, called ToxCast.⁶⁷ But EPA has yet to utilize this new screening technique for even a single chemical, as EPA has not conducted any testing since 2015. Further, in response to the 2021 OIG report, EPA announced that it would publish its acceptance of New Approach Methodologies, a

⁶⁴ See *2010 Appropriations Report*, *supra* note 45, at 106.

⁶⁵ H.R. REP. NO. 112-151, at 71 (2012) [hereinafter *2012 Appropriations Report*].

⁶⁶ See *Use of High Throughput Assays and Computational Tools in the Endocrine Disruptor Screening Program*, ENV’T PROT. AGENCY, <https://www.epa.gov/endocrine-disruption/use-high-throughput-assays-and-computational-tools-endocrine-disruptor#screening> (last visited Dec. 21, 2022).

⁶⁷ *Use of High Throughput Assays and Computational Tools*, 80 Fed. Reg. 35350 (June 19, 2015).

1 newer collection of screens focused on not using vertebrates as test animals, in
2 2021.⁶⁸ But yet again, this date passed with no such action from EPA, and to date
3 EPA still has not published the promised New Approach Methodologies.

4 101. Despite EPA's lack of progress in validating and implementing new
5 screens, the agency has leaned on its directive from Congress to create and validate
6 such screens as an excuse to halt testing of chemicals and to work only on the
7 development of assays. In fact, EPA's website and former EPA employees readily
8 admit as much. The website states "[w]hile EPA has discretionary authority to
9 issue, at any time, testing orders requiring manufacturers to conduct Tier 1 assays,
10 the Agency plans to assess the performance of the Tier 1 battery based on the test
11 data received for the initial list (List 1) of chemicals before beginning to routinely
12 issue orders to test additional chemicals."⁶⁹ The former EDSP Director confirmed
13 this as EPA's stance in his interview for the 2021 OIG report, stating, "since 2015,
14 the EDSP performance plan was just about the development and validation of the
15 HTP assays and computation toxicity methods."⁷⁰ This is despite the explicit
16 direction from the IG in its 2011 report that EPA should *not* wait until new methods
17 are validated to continue Tier 1 testing with proven, validated tests.⁷¹

18
19
20 ⁶⁸ See *2021 OIG Report*, *supra* note 50, at 20; see also ENV'T PROT. AGENCY, *EPA*
21 *Releases Updated New Approach Methodologies (NAMs) Work Plan* (Jan. 19,
22 2022), [https://www.epa.gov/sciencematters/epa-releases-updated-new-approach-](https://www.epa.gov/sciencematters/epa-releases-updated-new-approach-methodologies-nams-work-plan)
23 [methodologies-nams-work-plan](https://www.epa.gov/sciencematters/epa-releases-updated-new-approach-methodologies-nams-work-plan) (illustrating that a work plan for the NAMs
exists but no actual NAMs are anticipated until 2024, despite EPA's previous
promise to release such methodologies in 2021).

24 ⁶⁹ *Endocrine Disruptor Screening Program Overview*, ENV'T PROT. AGENCY,
25 [https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-](https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-program-edsp-overview)
program-edsp-overview (last visited Dec. 19, 2022).

26 ⁷⁰ Interviews Conducted in Preparation of the 2021 OIG Report, *supra* note 47, at
40.

27 ⁷¹ *2011 OIG Report*, *supra* note 50, at 27.

1 ***EPA's Failure to Act From 2015 to Present***

2 102. Most alarming with regard to EPA's commitment to carrying out the
3 EDSP is the complete *lack of action on the program since 2015*. And the amount of
4 activity from EDSP of late appears to be diminishing, rather than increasing. EPA
5 reported to Congress in 2008, 2009, and 2010, but has not provided a single report
6 since then.⁷² And historically, EPA published notices in the Federal Register with
7 updates on the EDSP, even if just for minor advancements in the program like
8 assay validation.⁷³ Between 2000 and 2015 EPA published more than 50 Federal
9 Register notices about the EDSP. But then it came to a halt and since 2015 EPA
10 has not published a single Federal Register notice about the EDSP.

11 103. The 2021 OIG report's statements of EPA instructing staff members to
12 ignore the FQPA's endocrine disruption legal requirements seems only to affirm
13 EPA's blatant disregard for their statutorily mandated duty to implement the EDSP
14 and test all pesticide chemicals.⁷⁴

15 104. Further, EPA's failure to even complete testing for the eighteen
16 chemicals the agency themselves identified as possible endocrine disruptors, despite
17 having had *seven years* to do so, demonstrates a complete failure on the part of EPA
18 to honor the FQPA's purpose to safeguard public health.

19 105. Such failure is perhaps explained by EPA's apparent attitude toward
20 the EDSP of late. Former EDSP employees attested that many within the EPA do
21 not believe EDSP testing is necessary.⁷⁵ One employee stated that "[i]n [EPA Office

22 _____
23 ⁷² *Endocrine Disruptor Screening Program Reports to Congress*, ENV'T PROT.
24 AGENCY, <https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-program-reports-congress> (last visited Dec. 19, 2022).

25 ⁷³ *Endocrine Disruptor Screening Program Federal Register Notices*, ENV'T PROT.
26 AGENCY, <https://www.epa.gov/endocrine-disruption/endocrine-disruptor-screening-program-federal-register-notices> (last visited Dec. 19, 2022).

27 ⁷⁴ See *2021 OIG Report*, *supra* note 50, at 13.

28 ⁷⁵ Interviews Conducted in Preparation of the 2021 OIG Report, *supra* note 47, at

1 of Pesticide Program]’s opinion, endocrine disruption can be elucidated by the
 2 normal toxicity studies already generated and collected for a pesticide registration”
 3 and thus, EPA “has adequately evaluated the endocrine disruption potential of
 4 about 95% of the active ingredients.”⁷⁶ Even if such sentiment was accurate
 5 scientifically—and it is not, because it flies in the face of the consensus view of
 6 endocrinologists—it is not within EPA’s discretion to act accordingly and fail to
 7 carry out the program that Congress required it to carry out.⁷⁷

8 ***Litigation to Date***

9 106. Plaintiffs are not the first to recognize EPA’s failings with reference to
 10 the EDSP. As is discussed above, in 1999 NRDC sued over EPA’s failure to
 11 implement the EDSP, a suit that ultimately ended in a settlement. *See infra* ¶79-
 12 80.

13 107. Directly on the heels of that, in 2005, nonprofit organizations
 14 Physicians Committee for Responsible Medicine and People for the Ethical
 15 Treatment of Animals also sued over EPA’s shortcomings with reference to the
 16 EDSP.⁷⁸ Like NRDC, they alleged EPA failed to implement the EDSP by the
 17 statutory deadline, amongst other unrelated claims. In 2006 the court dismissed
 18 that case on standing grounds, namely due to the plaintiffs’ failure to allege a
 19 concrete and particularized and actual and imminent injury.⁷⁹ The plaintiffs failed
 20

21 37.

22 ⁷⁶ *Id.* at 19.

23 ⁷⁷ ENDOCRINE SOC’Y, *Comments to EPA on Strategic Plan for the Environmental*
 24 *Protection Agency* (Nov. 12, 2021), <https://www.endocrine.org/-/media/endocrine/files/advocacy/society-letters/2021/november-2021/endocrine-society-comments-epa-strategic-plan-2226.pdf>.

25 ⁷⁸ Physicians Committee for Responsible Medicine, *et al.* v. U.S. Env’t Prot. Agency,
 26 No. C 05-04093, 2006 WL 3000657 (N.D. Cal. Oct. 20, 2006), *aff’d*, 292 Fed.
 Appx. 543 (2008).

27 ⁷⁹ *Id.* at *5–*7.

1 to identify any pesticides with unreasonable endocrine effects and any foods on
2 which such pesticides were sprayed.

3 108. Plaintiffs here do not suffer from these standing deficiencies. As is
4 discussed *infra*, Plaintiffs have identified multiple pesticides with possible
5 endocrine effects, pesticides EPA recognized as having such effects, and a myriad of
6 uses and products on which they are sprayed to which Plaintiffs are routinely
7 exposed. The court in *Physicians Committee* explicitly stated their ruling did not
8 stand for the proposition that “no consumers have standing to challenge the EPA’s
9 alleged failure to implement the [EDSP].” It clarified the “ruling is not nearly so
10 broad.”⁸⁰ This lawsuit involves not just consumer exposure but direct exposure to
11 farmers and farmworkers. And finally, the prior case was over fifteen years ago, and
12 in the interim, EPA has *still* not complied with Congress’s directives, making its
13 violations all the more egregious.

14 ***EPA Identified Possible Endocrine Disruptors But Has Taken No Further***
15 ***Steps to Protect Public Health and Implement the Program***

16 109. As discussed above, EPA found eighteen chemicals to be possible
17 endocrine disruptors after Tier 1 testing, thus necessitating Tier 2 testing. Of these
18 eighteen chemicals, seventeen have been deemed to be possible wildlife endocrine
19 disruptors, and five have been deemed to be possible human endocrine disruptors.

20 110. The chemicals include carbaryl, chlorothalonil, cypermethrin, DCPA,
21 dichlobenil, dimethoate, flutolanil, folpet, iprodione, linuron, metalaxyl, metribuzin,
22 myclobutanil, o-phenylphenol, PCNB, propargite, propiconazole, and
23 tebuconazole.⁸¹

24 _____
25 ⁸⁰ Memorandum and Order at 11, *Physicians Committee for Responsible Medicine,*
26 *et al. v. U.S. Env’t Prot. Agency*, 2006 WL 3000657 (N.D. Cal. Oct. 20, 2006) (C
27 05-04093).

28 ⁸¹ *Endocrine Disruptor Screening Program (EDSP) Tier 1 Assessments*, ENV’T PROT.
AGENCY, <https://www.epa.gov/endocrine-disruption/endocrine-disruptor->

1 111. The five deemed to be possible human endocrine disruptors are
2 cypermethrin, DCPA (also known as chlorthal-dimethyl or propanil), dimethoate,
3 linuron, and metribuzin. Of the eighteen, only dimethoate was deemed to not be a
4 possible wildlife endocrine disruptor.⁸²

5 112. All five of the possible human endocrine disruptors are still registered
6 for use throughout the U.S., despite EPA's recognition, over seven years ago, that
7 they pose a possible human health risk.

8 113. While the federal government lacks a comprehensive pesticide
9 reporting system, well-kept pesticide use records in California reveal each of these
10 five pesticides are used heavily throughout California. Further, EPA records reflect
11 more than one million pounds of each of the five pesticides are used annually, for
12 varied uses including on food and feed crops, non-crop, commercial, industrial, and
13 residential sites, ornamentals, and recreational areas.⁸³ Thus, there is little doubt
14 that enormous quantities of each of the five are being sprayed beyond California.

15 114. For example, cypermethrin is registered for use by EPA "on food and
16 feed crops including cotton, pecans, peanuts, broccoli and other Brassicas, and
17 sweet corn."⁸⁴ It can also be applied to livestock and is "registered for use on
18 industrial, commercial, and residential sites."⁸⁵ Total cypermethrin use per year is
19 over 2.0 million pounds.⁸⁶ In California specifically, it is sprayed on a variety of food

21 screening-program-edsp-tier-1-assessments#results-mean (last visited Nov. 7,
22 2022).

⁸² *Id.*

⁸³ See *infra* notes 84–103 and accompanying text.

23 ⁸⁴ ENV'T PROT. AGENCY, CYPERMETHRIN SUMMARY DOCUMENT REGISTRATION REVIEW
24 15 (Mar. 2012), <https://www.regulations.gov/document/EPA-HQ-OPP-2012-0167-0002>;
25 ENV'T PROT. AGENCY, CYPERMETHRINS INTERIM REGISTRATION REVIEW
26 DECISION 17 (Mar. 2021), <https://www.regulations.gov/document/EPA-HQ-OPP-2012-0167-0168> [hereinafter Cypermethrins IRRD].

⁸⁵ Cypermethrins IRRD, *supra* note 84, at 5.

⁸⁶ *Id.* at 17.

1 crops, including but not limited to rapini, pistachio, onion, lettuce heads, kale,
 2 garlic, Chinese cabbage, cauliflower, broccoli, and bok choy. It is also heavily used
 3 for landscape maintenance. California state pesticide use data shows that annually,
 4 enormous quantities are sprayed in Fresno, Imperial, Kern, L.A., Riverside, and
 5 Tulare counties in California.⁸⁷ Cypermethrin mimics estrogen and can cause
 6 changes in female genital organs.⁸⁸ In the environment, cypermethrin breaks down
 7 into chemical metabolites that have stronger estrogenic effects than their parent
 8 compound and thus are more likely to interfere with the endocrine system.⁸⁹

9 115. DCPA is an herbicide registered for use by EPA “on a variety of crop
 10 and non-crop sites, including corn, soybeans, cole crops, cucurbits, onions, tomatoes,
 11 peppers, herbs, and non-residential turf and ornamentals.”⁹⁰ Use is estimated at
 12 somewhere between 1.0 and 1.8 million pounds per year.⁹¹ In California, DCPA is
 13 sprayed most heavily on food crops, particularly Bok-choy, broccoli, brussels
 14 sprouts, cabbage, cauliflower, Chinese cabbage, radish, and rapini. However, it is
 15 also used on other crops, as well as for landscaping purposes. California state
 16 pesticide use data shows heavy application in Ventura, Fresno, Imperial, Kern,
 17

18
 19 ⁸⁷ *Pesticide Use Reporting*, CALI. DEPT’ OF PESTICIDE REGULATION,
 20 <https://www.cdpr.ca.gov/docs/pur/purmain.htm> (last visited Nov. 4, 2022) (based
 on 2020 data) [hereinafter *Pesticide Use Reporting*].

21 ⁸⁸ Elena Marettova et al., *Effect of pyrethroids on female genital system,*
 22 *review*, 184 ANIMAL REPRODUCTION SCIENCE 132 (2017),
 23 <https://www.sciencedirect.com/science/article/abs/pii/S0378432017302075>;
 Wissem Mnif et al., *Effect of Endocrine Disruptor Pesticides: A Review*, 8
 24 INT’L J. ENV’T RES. PUB. HEALTH 2265, 2274 (2011),
<https://www.mdpi.com/1660-4601/8/6/2265>.

25 ⁸⁹ Marettova, *supra* note 88.

26 ⁹⁰ ENV’T PROT. AGENCY, DCPA SUMMARY DOCUMENT REGISTRATION REVIEW INITIAL
 DOCKET 11 (June 2011), <https://www.regulations.gov/document/EPA-HQ-OPP-2011-0374-0002>.

27 ⁹¹ *Id.*

1 Monterrey, Riverside, San Benito, San Luis Obispo, Santa Barbara, and Stanislaus
2 counties.⁹²

3 116. In addition to being a flagged as a possible endocrine disruptor for
4 which EPA has not completed screening, DCPA's registration also may be facing
5 suspension due to a failure of the retailer to provide many of the studies necessary
6 for evaluating health impacts during registration review.⁹³ Nevertheless, products
7 containing DCPA continue to be sold and sprayed as of the filing of this complaint.
8 DCPA can keep androgens (male sex hormones) from binding with androgen
9 receptors and has been demonstrated to alter the immune system, including
10 altering antibody production.⁹⁴

11 117. Dimethoate is registered for use by EPA "to control a variety of insect
12 pests on fruit, vegetable, grain, and field crops, as well as ornamentals and non-
13 cropland adjacent to agricultural fields."⁹⁵ EPA estimates 1.8 million pounds are
14 used annually, with the highest uses being on alfalfa, wheat, cotton, and corn.⁹⁶
15 Dimethoate is also used significantly throughout California, on food crops and for

16 _____
17 ⁹² *Pesticide Use Reporting*, *supra* note 87.

18 ⁹³ *EPA Issues Notice of Intent to Suspend the Herbicide DCPA*, ENV'T PROT. AGENCY,
19 (April 28, 2022), [https://www.epa.gov/pesticides/epa-issues-notice-intent-suspend-herbicide-dcpa#:~:text=Released%20on%20April%2028%2C%202022,pesticide%20dimethyl%20tetrachloroterephthalate%20\(DCPA\).](https://www.epa.gov/pesticides/epa-issues-notice-intent-suspend-herbicide-dcpa#:~:text=Released%20on%20April%2028%2C%202022,pesticide%20dimethyl%20tetrachloroterephthalate%20(DCPA).)

20 ⁹⁴ Corsini et al., *Immune System Toxicology*, 11 COMPREHENSIVE TOXICOLOGY 761
21 (2018), [https://www.sciencedirect.com/topics/pharmacology-toxicology-and-pharmaceutical-science/propanil#:~:text=3%2C4%2DDichloroproprioanilide%20\(DCPA,Wham%20ODF%2C%20and%20Wham%20EZ.](https://www.sciencedirect.com/topics/pharmacology-toxicology-and-pharmaceutical-science/propanil#:~:text=3%2C4%2DDichloroproprioanilide%20(DCPA,Wham%20ODF%2C%20and%20Wham%20EZ.); Hiroyuki Kojima et al., *Screening for Estrogen and Androgen Receptor Activities in 200 pesticides by In Vitro Reporter Gene Assays Using Chinese Hamster Ovary Cells*, 112 ENVIRONMENTAL HEALTH PERSPECTIVES 524 (2004), <https://ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.6649>.

25 ⁹⁵ ENV'T PROT. AGENCY, DIMETHOATE SUMMARY DOCUMENT REGISTRATION REVIEW 10
26 (Mar. 2009), <https://www.regulations.gov/document/EPA-HQ-OPP-2009-0059-0006>.

27 ⁹⁶ *Id.*

1 landscape maintenance, but most prevalently on commodity crops such as alfalfa
2 and cotton. For example, its application exceeds 1000 pounds per year in Ventura,
3 Yolo, Fresno, Imperial, Kern, Kings, L.A., Merced, Monterey, Riverside,
4 Sacramento, San Joaquin, Solano, Stanislaus, and Tulare counties.⁹⁷ Dimethoate
5 disrupts thyroid hormones, increases insulin blood concentration, and decreases the
6 blood's concentration of luteinizing hormone, a hormone that plays a pivotal role in
7 sexual development and functioning.⁹⁸

8 118. Linuron is registered by EPA for use on agricultural crops including
9 asparagus, carrots, celery, corn, cotton, potato, sorghum, soybeans, and wheat, and
10 for uses on non-cropland (roadsides, fencerows, etc.) and ornamental bulbs.⁹⁹ In
11 California, Linuron is used most prevalently on food crops, specifically carrots,
12 celery, and cilantro, throughout Ventura, Fresno, Imperial, Kern, Monterey,
13 Riverside, San Luis Obispo, and Santa Barbara counties.¹⁰⁰ Linuron mimics
14 androgen and thyroid hormones, disrupting reproduction, heartrate, metabolism,
15 and development.¹⁰¹

16 119. Metribuzin is registered for use by EPA "on terrestrial food and feed
17 crops, grasses grown for seed, recreational areas, ornamental lawns and turf."¹⁰²
18 Annually, approximately 1.4 million pounds are used, with sugarcane, potatoes,
19 soybeans, and alfalfa accounting for a large portion of the application.¹⁰³
20 Throughout California, Metribuzin also incurs widespread use on food crops,

21 ⁹⁷ *Pesticide Use Reporting*, *supra* note 87.

22 ⁹⁸ Mnif, *supra* note 88, at 2274.

23 ⁹⁹ ENV'T PROT. AGENCY, LINURON INTERIM REGISTRATION REVIEW DECISION 11, 18
24 (June 2020), <https://www.regulations.gov/document/EPA-HQ-OPP-2010-0228-0073>.

25 ¹⁰⁰ *Pesticide Use Reporting*, *supra* note 87.

26 ¹⁰¹ Mnif, *supra* note 88, at 2279.

27 ¹⁰² ENV'T PROT. AGENCY, METRIBUZIN PRELIMINARY WORK PLAN 6 (Sept. 2012),
<https://www.regulations.gov/document/EPA-HQ-OPP-2012-0487-0008>.

28 ¹⁰³ *Id.*

1 including potatoes and tomatoes, as well as significant use on alfalfa crops. Its use
 2 is most prevalent in Yolo, Colusa, Lassen, Modoc, San Joaquin, Siskiyou, and
 3 Solano counties.¹⁰⁴ Metribuzin results in a hyperactive thyroid, as well as disrupted
 4 levels of growth hormone.¹⁰⁵

5 120. EPA determined in its Tier 1 tests that four of the five pesticides
 6 discussed above, as well as thirteen additional pesticides, are possible wildlife
 7 endocrine disruptors.¹⁰⁶ For example, the insecticide cypermethrin, discussed
 8 above,¹⁰⁷ is recognized as acting as an endocrine disrupting compound in mammals
 9 and fish.¹⁰⁸

10 121. Carbaryl is one of the most widely used broad spectrum insecticides.¹⁰⁹
 11 EPA authorized its use on fruit and nut trees and many other fruits and vegetables
 12 and grain crops, as well as professional turf management and ornamental
 13 production, and in residential lawn and garden markets.¹¹⁰ Approximately one
 14 million pounds of carbaryl are used in the U.S. each year.¹¹¹ Carbaryl is sprayed
 15

16 _____
 17 ¹⁰⁴ *Pesticide Use Reporting*, *supra* note 87.

18 ¹⁰⁵ Mnif, *supra* note 88, at 2281.

19 ¹⁰⁶ See ¶ 109.

20 ¹⁰⁷ See ¶ 114.

21 ¹⁰⁸ Susanne Brander et al., *Pyrethroid pesticides as endocrine disruptors: molecular*
 22 *mechanisms in vertebrates with a focus on fishes*, 50 ENV'T SCI. & TECH. 17
 (2016), [https://www.researchgate.net/profile/Susanne-
 Brander/publication/305690104_Pyrethroid_Pesticides_as_Endocrine_Disruptors
 _Molecular_Mechanisms_in_Vertebrates_with_a_Focus_on_Fishes/links/5a0affd
 a458515e48274418d/Pyrethroid-Pesticides-as-Endocrine-Disruptors-Molecular-
 Mechanisms-in-Vertebrates-with-a-Focus-on-Fishes.pdf](https://www.researchgate.net/profile/Susanne-Brander/publication/305690104_Pyrethroid_Pesticides_as_Endocrine_Disruptors_Molecular_Mechanisms_in_Vertebrates_with_a_Focus_on_Fishes/links/5a0affda458515e48274418d/Pyrethroid-Pesticides-as-Endocrine-Disruptors-Molecular-Mechanisms-in-Vertebrates-with-a-Focus-on-Fishes.pdf).

23 ¹⁰⁹ Ann M. Blacker et al., *Toxicological Profile of Carbaryl*, in HAYES' HANDBOOK OF
 24 PESTICIDE TOXICOLOGY 1607 (3rd ed. 2010),
<https://www.sciencedirect.com/science/article/pii/B9780123743671000744>.

25 ¹¹⁰ ENV'T PROT. AGENCY, CARBARYL PROPOSED INTERIM REGISTRATION REVIEW
 26 DECISION 15 (Nov. 2022), [https://www.regulations.gov/document/EPA-HQ-OPP-
 2010-0230-0120](https://www.regulations.gov/document/EPA-HQ-OPP-2010-0230-0120) [hereinafter Carbaryl IRRD].

27 ¹¹¹ *Id.* at 15–17.

1 widely in California, with use reported in 41 counties across California in 2018.¹¹²
 2 Carbaryl acts as an endocrine disruptor to impact metamorphosis and immune
 3 function in amphibians, among other potential harms to wildlife.¹¹³ EPA indicated
 4 that it did not make “any human health or environmental safety findings associated
 5 with the Endocrine Disruptor Screening Program (EDSP) screening of carbaryl” in
 6 its recently published proposed interim registration decision for the pesticide.¹¹⁴

7 122. Chlorothalonil is a broad spectrum, protectant fungicide used on a
 8 wide variety of agricultural crops, as well as home garden use on fruits and
 9 vegetables.¹¹⁵ It is also approved by EPA for non-agricultural uses, such as on golf
 10 courses, residential and commercial lawns and other turfgrass.¹¹⁶ About 12 million
 11 pounds of chlorothalonil are sprayed annually, with the biggest use on golf courses,
 12 followed by use on peanuts, potatoes, almonds, tomatoes, and cherries.¹¹⁷
 13 Chlorothalonil is also used in significant quantities for residential use and in
 14 nurseries and greenhouses.¹¹⁸ Chlorothalonil is a likely endocrine disruptor in
 15 mammals, fish, and amphibians.¹¹⁹

16 _____
 17 ¹¹² *Pesticide Use Reporting*, *supra* note 87.

18 ¹¹³ Francisco De Jesus Andino et al., *Long term effects of carbaryl exposure on*
 19 *antiviral immune responses in Xenopus laevis*, 170 CHEMOSPHERE 169 (2017),
 20 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5205582/>; Michelle D. Boone et
 21 al., *Specific time of exposure during tadpole development influences biological*
 22 *effects of the insecticide carbaryl in green frogs (Lithobates clamitans)*, 130–131
 23 AQUATIC TOXICOLOGY 139 (2013),
 24 <https://www.sciencedirect.com/science/article/abs/pii/S0166445X12003591?via%3Dihub>; Trudeau, *supra* note 18.

25 ¹¹⁴ Carbaryl IRRD, *supra* note 110.

26 ¹¹⁵ ENV'T PROT. AGENCY, CHLOROTHALONIL: DRAFT ECOLOGICAL RISK ASSESSMENT
 27 FOR REGISTRATION REVIEW 4 (2020), [https://www.regulations.gov/document/EPA-](https://www.regulations.gov/document/EPA-HQ-OPP-2011-0840-0036)
 28 HQ-OPP-2011-0840-0036.

¹¹⁶ *Id.*

¹¹⁷ *Id.* at 22.

¹¹⁸ *Id.*

¹¹⁹ ZhiChao Dang et al., *Fish toxicity testing for identification of thyroid disrupting*
 chemicals, 284 ENV'T POLLUTION 1 (2021),

1 123. Propiconazole is a broad-spectrum triazole fungicide that is used in
2 agricultural and non-agricultural settings, such as turfgrass, ornamentals, fruit and
3 nut trees, and several food crops.¹²⁰ More than 2 million pounds of propiconazole are
4 applied annually on agricultural crops, with major uses on wheat, corn, soybeans,
5 and rice.¹²¹ Propiconazole has been observed to cause endocrine disruption in
6 mammals, fish, and amphibians.¹²²

7 ***EPA's Failure to Implement the EDSP and Test All Pesticide Chemicals***

8 124. As discussed above, one of the critical purposes of the FQPA is the
9 protection of public health, and at issue here, the specific intent to protect against
10 adverse human health effects caused by endocrine disruption.

13 <https://www.sciencedirect.com/science/article/pii/S0269749121009568>; Yanan
14 Hao et al., *Chlorothalonil inhibits mouse ovarian development through endocrine*
15 *disruption*, 303 TOXICOLOGY LETTERS 38 (2019),
16 <https://www.sciencedirect.com/science/article/abs/pii/S037842741832068X>;
17 Taegan A. McMahon et al., *The Fungicide Chlorothalonil Is Nonlinearly*
18 *Associated with Corticosterone Levels, Immunity, and Mortality in Amphibians*,
19 119 ENV'T HEALTH PERSPECTIVES 1098 (2011),
20 <https://ehp.niehs.nih.gov/doi/full/10.1289/ehp.1002956>.

21 ¹²⁰ ENV'T PROT. AGENCY, PROPICONAZOLE PROPOSED INTERIM REGISTRATION REVIEW
22 DECISION 5 (Mar. 2022), [https://www.regulations.gov/document/EPA-HQ-OPP-](https://www.regulations.gov/document/EPA-HQ-OPP-2015-0459-0072)
23 [2015-0459-0072](https://www.regulations.gov/document/EPA-HQ-OPP-2015-0459-0072).

24 ¹²¹ *Id.* at 13.

25 ¹²² Sofia Svanholm et al., *Developmental reproductive toxicity and endocrine activity*
26 *of propiconazole in the Xenopus tropicalis model*, 753 SCI.TOTAL ENV'T 1 (2020),
27 [https://www.researchgate.net/profile/Cecilia-](https://www.researchgate.net/profile/Cecilia-Berg/publication/343844062_Developmental_reproductive_toxicity_and_endocrin)
28 [Berg/publication/343844062_Developmental_reproductive_toxicity_and_endocrin](https://www.researchgate.net/profile/Cecilia-Berg/publication/343844062_Developmental_reproductive_toxicity_and_endocrin)
[e_activity_of_propiconazole_in_the_Xenopus_tropicalis_model/](https://www.researchgate.net/profile/Cecilia-Berg/publication/343844062_Developmental_reproductive_toxicity_and_endocrin); Miaomiao Teng
et al., *Life cycle exposure to propiconazole reduces fecundity by disrupting the*
steroidogenic pathway and altering DNA methylation in zebrafish (Danio rerio),
135 ENV'T INT'L 1 (2020),
<https://www.sciencedirect.com/science/article/pii/S0160412019331551>; Nathalia
Orlandini Costa et al., *Evaluation of the reproductive toxicity of fungicide*
propiconazole in male rats, 335 TOXICOLOGY 55 (2015),
<https://core.ac.uk/reader/82434630>.

1 125. As such, Congress required EPA to develop and implement the EDSP
2 in relatively short order and to be thorough in carrying out the EDSP. Congress
3 mandated that the EDSP be implemented no later than August 3, 1999, 21 U.S.C. §
4 346a(p)(2), and required testing of *all* pesticide chemicals for possible endocrine
5 effects in carrying out the EDSP. *Id.* § 346a(p)(3)(A). EPA, on the Endocrine
6 Disruptor Screening and Testing Advisory Committee’s recommendation, expanded
7 the scope of the EDSP to encompass even more chemicals, not just those present in
8 pesticides.¹²³

9 126. EPA has failed to meet their deadlines and take Congressionally
10 required action. In the more than twenty-five years since the enactment of the
11 FQPA, EPA has failed to finalize validation of assays for testing and has only
12 succeeded in making complete endocrine effect determinations for approximately
13 2% of pesticide chemicals.

14 127. Specifically, EPA has published only two lists of chemicals to date: List
15 1 consisting of sixty-seven pesticides (although it was reduced to fifty-two) and List
16 2 consisting of 109 pesticides. EPA has only completed Tier 1 testing for List 1
17 chemicals and has not completed any Tier 2 testing for List 1 despite a finding by
18 EPA, more than seven years ago, that eighteen of the chemicals are possible
19 endocrine disruptors. EPA has completed no testing for List 2.

20 128. At the same time as EPA only managed to complete Tier 1 testing for
21 fifty-two pesticides, EPA completed registration for 425 new pesticides *without*
22 *consideration* of their potential endocrine effects—flouting the whole point of
23 Congress’s FQPA mandates—bringing the total number of registered pesticides
24 from 890 in 1990 to 1315 in 2020.¹²⁴

26 ¹²³ See *supra* note 27 and accompanying text.

27 ¹²⁴ See *2021 OIG Report*, *supra* note 50, at 10.

1 129. Because the EDSP has not tested any pesticides since 2015, yet has
2 continued to register hundreds of new ones, EPA has fallen further and further
3 behind with the EDSP, as the percentage of pesticides screened for Tier 1 testing
4 has steadily diminished from 2015 to 2022.

5 130. Multiple former EPA employees cautioned the agency against such
6 approach, encouraging the agency to require Tier 1 screening data for all
7 registration applications for new active ingredients.¹²⁵ Nevertheless, the agency
8 disregarded the advice of EDSP employees and simply registered more pesticides
9 necessitating future endocrine screening.

10 131. Further, pesticide chemicals are not the only chemicals slated to be
11 tested under the EDSP adopted by EPA. EPA themselves estimated over 87,000
12 chemicals are subject to testing under the EDSP.¹²⁶ If current trends hold and
13 testing continues to happen at this (at best) languid pace, the percentage of
14 screened pesticides will only continue to diminish, and EPA will never meet their
15 statutory mandates.

16 132. Still less will EPA's current approach permit it to ever assess the
17 impacts of pesticides or other chemicals on the over forty additional hormone
18 systems—beyond estrogen, androgen, and thyroid—that EDSTAC deemed “essential”
19 to test.¹²⁷

20 133. In sum, EPA is not complying with the Congressional mandates of the
21 FQPA's EDSP provisions. EPA failed and continues to fail to implement the EDSP
22 as required by Section 346a(p)(2).¹²⁸ EPA also failed to test all pesticide chemicals,
23 and its minimal previous action and complete lack of action in recent years indicate

24 ¹²⁵ Interviews Conducted in Preparation of the 2021 OIG Report, *supra* note 47, at
25 13.

26 ¹²⁶ Endocrine Disruptor Screening Program, 63 Fed. Reg. at 71545.

27 ¹²⁷ EDSTAC Final Report, *supra* note 27.

28 ¹²⁸ 21 U.S.C. § 346a(p)(2).

1 that EPA is not on track to “provide for the testing of all pesticide chemicals”
2 anytime in the near future, if at all.¹²⁹

3 ***Harm to Plaintiffs***

4 134. The interests of Plaintiffs, organizationally and through their
5 hundreds of thousands of members, are being and will be adversely affected by
6 Defendants’ continued failure to implement the EDSP and complete testing of all
7 pesticides.

8 135. Defendant’s unlawful withholding and unreasonable delay of FQPA
9 pursuant to 21 U.S.C. § 346a(p), regarding implementing the EDSP and testing all
10 pesticides for endocrine effects, injures Plaintiffs by putting their members’ health
11 and safety in increased jeopardy, through the continuing risk of exposure to
12 endocrine disrupting chemicals. Without the FQPA-required EDSP determining
13 which chemicals are endocrine disruptors and thus prompting action to safeguard
14 against adverse health impacts, Congress’s will is thwarted and Plaintiffs’ members
15 are put at a greater risk of suffering adverse health impacts as a result of exposure
16 to endocrine disruptors. Endocrine disruption affects members’ health, well-being,
17 and conservation interests.

18 136. Plaintiffs’ members are farmers, farmworkers, landscapers,
19 consumers, and conservationists. They live and work in, landscape, and eat food
20 produced in the above recognized areas of California that are sprayed with
21 pesticides EPA has identified as being possible human endocrine disruptors, and in
22 other areas of the U.S. where crops are grown with the aid of possible human
23 endocrine disrupting pesticides. Further, they recreate with the purpose of enjoying
24 wildlife in areas sprayed with pesticides EPA has recognized as possible wildlife
25 endocrine disruptors.

26
27 ¹²⁹ *Id.* § 346a(p)(3)(A).

1 Farmworkers, Landscapers, and Consumers

2 137. The failure to test all pesticides for possible endocrine effects injures
3 Plaintiffs' members' health, to the detriment of their economic, vocational, health,
4 and personal interests.

5 138. As is noted above, EPA recognized cypermethrin, DCPA, dimethoate,
6 linuron, and metribuzin as possible human endocrine disruptors.¹³⁰

7 139. Plaintiffs' have farmer and farmworker members who work with
8 crops, such as alfalfa and cotton, crops dimethoate is readily sprayed on, among
9 other pesticides that EPA has found are possible endocrine disrupters.

10 140. Plaintiffs' have members who live and work in areas that utilize
11 cypermethrin in conducting landscape maintenance, among other pesticides that
12 EPA has found are possible endocrine disrupters.

13 141. Plaintiffs' farmworker and landscaper members continue their work
14 with no real certainty as to whether the chemicals they are exposed to everyday are
15 disrupting their hormone systems and potentially inducing adverse health impacts
16 such as cancer, thyroid conditions, diminished fertility, and more. Those
17 farmworker and landscaper members who wish to err on the side of caution given
18 EPA's failure to provide definitive findings on the question of endocrine disruption
19 will have to take extra, potentially costly, precautions to prevent exposure to the
20 pesticides during their jobs or quit their jobs entirely to avoid exposure to pesticides
21 that potentially pose adverse health effects.

22 142. Many of the Plaintiffs' members consume vegetables grown in states,
23 like California and Florida, where endocrine disrupting pesticides such as
24 metribuzin and linuron are readily used on food crops, including but not limited to
25 carrots, celery, cilantro, potatoes, tomatoes, and corn.

26 _____
27 ¹³⁰ See ¶ 111.

1 143. Plaintiffs' consumer members continue to purchase and consume
2 produce. While many of Plaintiffs' members try to avoid pesticide use on their
3 produce by purchasing organic options, organic produce is not always available and
4 for other members it is financially unattainable. As such, many members must
5 purchase and consume produce they fear is adversely impacting their health. Those
6 that are able to purchase organic produce in order to avoid consuming produce
7 sprayed with possible endocrine disruptors are incurring an additional expense as a
8 result of EPA's failure to complete endocrine testing.

9 144. The livelihood and economic interests of Plaintiffs' members are
10 injured by EPA's failure to implement the EDSP.

11 145. There is little doubt that EPA's failure to complete screening of all
12 pesticide chemicals for possible endocrine effects has caused damage to Plaintiffs'
13 members health. A wealth of scientific studies conclude that many chemicals in use
14 today are endocrine disruptors capable of devastating adverse health impacts.¹³¹
15 Plaintiffs' members are routinely exposed to a myriad of pesticides, including the
16 five EPA has flagged as possible endocrine disruptors, via their livelihoods and food
17 consumption. EPA's continued failure to implement the EDSP and complete testing
18 of all pesticides for possible endocrine effects compounds Plaintiffs' members'
19 exposure.

20 146. Plaintiffs' members are deeply concerned that EPA's failure to
21 complete testing for all pesticides, but particularly those EPA has already
22 acknowledged as being possible endocrine disruptors, will result in their continued
23 exposure to chemicals at levels that are causing harm to their health and that of
24 their children and future children.

25
26
27 ¹³¹ See *supra* notes 10–14 and accompanying text.

1 147. Plaintiffs' members with young children, and those hoping to one day
2 welcome children, are concerned about the long-term impacts of likely repetitive
3 exposure to endocrine disrupting chemicals. Many fear developmental delays in
4 their young children and others fear possible fertility struggles, well recognized
5 health consequences of endocrine disruption.

6 148. All in all, EPA's failure to implement the EDSP and test all pesticides
7 for possible endocrine effects has, and will continue to, injure Plaintiffs' members
8 interests and their ability to freely select what they eat and how and where they
9 work, as well as cost them additional money to take precautions to mitigate possible
10 exposure to endocrine disrupting chemicals.

11 149. One of plaintiff CEH's members is concerned about the effects of
12 endocrine disruptors on her health and that of her children. She began attempting
13 to avoid endocrine disrupting chemicals at the direction of her doctor after
14 experiencing infertility. She has since spent extra time and money attempting to
15 minimize hers and her children's exposure to endocrine disrupting chemicals. She
16 does this by buying organic produce whenever possible, incurring a larger expense
17 as a result, and going through the labor-intensive process of cooking, blending, and
18 freezing her own organic baby food. Despite her best efforts, she knows her children
19 are inevitably exposed to endocrine disrupting chemicals via the foods they consume
20 at school, restaurants, and friends' houses, and during the occasional fast-food
21 outing. Her children, like many others, enjoy french fries, a potato product that in
22 all likelihood is being sprayed with at least one of the above five mentioned
23 pesticides. She fears the developmental impacts that her children may face as a
24 result of such exposure.

25 Conservationists

26 150. The failure to test all pesticides for possible endocrine effects injures
27 Plaintiffs member's environmental interests.

1 151. Plaintiffs' members are also conservationists with aesthetic,
2 recreational, vocational, and personal interests in the protection of the
3 environment, more specifically wildlife, from the adverse impacts of endocrine
4 disruption. Members are heavily involved with protecting species and ensuring the
5 environment safeguards wildlife health, for recreational, and personal reasons. The
6 use of chemicals flagged as possible endocrine disruptors poses a real threat of harm
7 to the health of wildlife, injuring Plaintiff's members' recreational interest in
8 maintaining biodiversity and protecting sensitive species.

9 152. EPA's continued failure to test all pesticide chemicals, but especially
10 its failure to complete Tier 2 testing for those that EPA recognizes as possible
11 endocrine disruptors, will result in the continued use of these likely damaging
12 pesticide chemicals. Consequently, species may face developmental malformations,
13 interference with reproduction, increased cancer risk, and disturbances in immune
14 and nervous system function. Such realities will diminish members' abilities to
15 enjoy wildlife.

16 153. One of Plaintiff Center for Food Safety's members is an
17 environmentalist and wildlife enthusiast, with a bachelor's degree in natural
18 resources, who is concerned about the impacts of endocrine disrupting pesticides on
19 wildlife. She enjoys searching for and observing wildlife and is concerned about how
20 endocrine disrupting pesticides may be contributing to wildlife declines. Both the
21 knowledge of these losses and the fact that such losses are making it more difficult
22 for her to observe wildlife harms her. She is also the mother of a four-year-old child
23 and is concerned about the impacts of exposures to endocrine disrupting pesticides
24 on her child's development. Because of this she spends extra money to primarily buy
25 organic foods in an attempt to reduce potential exposures and protect both her
26 family's health and wildlife.

1 154. The requested relief will redress this harm by compelling EPA to
2 implement the EDSP and resume testing of all pesticide chemicals as required by
3 law for the safety of all Americans, and Plaintiffs' members in particular.

4 Organizational Injury

5 155. In addition to the injury to its individual members, the EPA's failure to
6 act also injures Plaintiffs' organizational interests. Each organization has a mission
7 dedicated to protecting the environment and/or farmers and farmworkers from the
8 adverse impacts of industrial agriculture, specifically pesticides. EPA's continued
9 failure to implement the EDSP and test all pesticide chemicals causes Plaintiff
10 organizations to divert resources from addressing other pesticides to focus on the
11 harms and injuries caused by endocrine disrupting pesticides.

1 **CAUSE OF ACTION**

2 [Violation of the FQPA and the APA – Against EPA]

3 [By All Plaintiffs]

4 156. Plaintiffs incorporate by reference all allegations contained in
5 paragraphs 1 through 155 *supra*.

6 157. The FQPA requires EPA to implement the EDSP by August 3, 1999.
7 The Act also requires the EPA test all pesticide chemicals for possible endocrine
8 effects in carrying out the EDSP. EPA’s failure to take either of these mandatory
9 actions constitutes unlawfully withheld and unreasonably delayed agency action
10 within the meaning of the APA.

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

14 159. The definition of “agency action” includes a “failure to act.” 5 U.S.C. §
15 551(13).

16 160. Plaintiffs and their members are adversely affected by EPA’s past and
17 continued failure to complete the actions required by Congress in the FQPA. *See id.*

18 161. The APA states that a reviewing court shall interpret statutes and
19 “shall compel agency action unlawfully withheld or unreasonably delayed.” 5 U.S.C.
20 § 706(1).

21 162. EPA’s failure to implement the EDSP and test all pesticide chemicals
22 for possible endocrine effects constitutes both unlawfully withheld agency action
23 and unreasonably delayed agency action that this Court shall compel. *See id.*

PRAYER OF RELIEF

WHEREFORE, the Plaintiffs respectfully request that the Court enter an Order:

163. Declaring the EPA has violated the FQPA and the APA by failing to implement the EDSP by August 3, 1999;

164. Declaring the EPA continues to be in violation of the FQPA and the APA by failing to implement the EDSP;

165. Declaring the EPA has violated the FQPA and the APA by failing to timely complete the testing of all pesticide chemicals for possible endocrine effects;

166. Declaring that EPA continues to be in violation of the FQPA and the APA by failing to complete the testing of all pesticide chemicals for possible endocrine effects;

167. Ordering EPA to complete all actions required under the FQPA at issue in this case as soon as reasonably practicable, according to a Court-ordered timeline;

168. Retaining jurisdiction of this action to ensure compliance with its decree;

169. Awarding Plaintiffs attorney's fees and all other reasonable expenses incurred in pursuit of this action; and

170. Granting such other relief as the Court deems just and proper.

1 Dated this 20th day of December, 2022.

2
3 /s/ Jennifer Loda

4 Jennifer Loda (Ca Bar No. 284889)
5 Pegga Mosavi (*Pro Hac Vice* Pending)
6 Center for Food Safety
7 303 Sacramento Street, 2nd Floor
8 Emails: jloda@centerforfoodsafety.org
9 pmosavi@centerforfoodsafety.org

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
Counsel for Plaintiffs