

August 6, 2023

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Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

Submitted electronically via Federal eRulemaking Portal

RE: Vulnerable Listed (Endangered and Threatened) Species Pilot Project: Proposed Mitigations, Implementation Plan, and Possible Expansion (EPA-HQ-OPP-2023-0327)

Dear Ms. Matuszko,

As groups representing farmers, producers, retailers, coops, academics, and other stakeholders, we are writing to express our grave concern with the vulnerable listed species pilot project as proposed (EPA-HQ-OPP-2023-0327). On its face, it appears that the proposal would render the agency non-compliant with its legal obligations under several statutes. We are also disturbed that, given the immense implementation challenges this proposal poses, it will effectively result in a *de facto* pesticide ban for many farmers, businesses, and other users in the pilot range areas. Many of these growers, producers, ranchers, and other users will be left defenseless against destructive pests, jeopardizing their individual operations and risking significant harm to our food, fuel, and fiber supplies, our rural communities, and our nation's economic wellbeing. We strongly urge the agency to withdraw this distressing proposal and work with stakeholders to develop realistic solutions that will help the agency meet its legal obligations under the Endangered Species Act (ESA) while not seriously and irreparably harming pesticide users, our economy, and rural communities.

Response to Comments Requested

At the outset, we urge the agency to issue a formal response to comments submitted to the docket for the vulnerable listed species pilot project (hereafter "vulnerable species pilot"). We are concerned that EPA has increasingly treated its efforts to make the pesticide program ESA compliant as a purely legal exercise with little concern with how stakeholders and regulated entities would practically implement these proposals. Stakeholders and coregulators have submitted numerous questions and raised concerns with the agency's plans, such as during the agency's revised ESA Work Plan proposal comment period,¹ for which the agency has stated it does not plan to provide a response to comments.

Subsequent proposals, including the vulnerable species pilot, contain many of the same unanswered questions, concerns, and ambiguities that were included in previous proposals. This leaves stakeholders to believe the agency either did not consider or disagrees with comments. Yet, without a response to comments, we have no way of knowing how best to revise our feedback to address the agency's thoughts or concerns for subsequent proposals. The result is that stakeholders continue to lack information about how the agency intends to implement these proposals, which may undermine their effectiveness or place regulated entities in a position of legal uncertainty. To address these challenges, we firmly request that the EPA provide a response to comments and reaffirm its commitment to work

¹ U.S. Environmental Protection Agency. Office of Chemical Safety and Pollution Prevention. Office of Pesticide Programs. November 2022. *ESA Work Plan*. <https://www.regulations.gov/docket/EPA-HQ-OPP-2022-0908>

with stakeholders and coregulators to understand how it practically plans to implement its ESA proposals.

Uses and Benefits of Pesticides

Pesticides are vitally important to many economic activities in the United States and carry numerous benefits. If not properly managed, pests can be economically devastating to pesticide users' operations and the communities in which they reside. For example, a 2007-2017 study found that corn, soybean, dry bean, and sugarbeet producers would suffer on average 50, 52, 71, and 70 percent yield loss if they left weeds unmanaged.² This would amount to an annual loss of more than \$46 billion for U.S. and Canadian producers of these crops. It is important to note these are averages. Some particularly noxious weed varieties, such as palmer amaranth, have been documented to reduce yields by as much as 79 percent in soybeans and 91 percent in corn.³ Yield losses of this magnitude would be financially ruinous for any individual producer.

Pest pressures are also notoriously devastating to the more than 500 types of fruit, vegetable, tree nut, flower, ornamental nursery, and turf grass crops – or specialty crops, causing catastrophic economic damage. For example, Mediterranean fruit flies have been documented to cause 20-25 percent yield loss in citrus, 55 percent in apricots, and as great as 91 percent yield loss in peaches. Some pests, such as the Olive fruit fly, can even inflict total crop loss, and have been recorded to cause 100 percent yield loss in table olives.⁴ The availability and use of safe, effective pesticidal products is the most significant tool agricultural producers have to manage these and other pests that otherwise would inflict billions of dollars in losses.

It is important to note that when uncontrollable pests are present in a region, it is not just agricultural producers who suffer, but the communities surrounding them. For example, citrus greening is an incurable bacterial disease that kills citrus trees and is transmitted by Asian citrus psyllid insects. Since its discovery in Florida in 2005, citrus growers in the region have declined from 7,389 in 2002 to 2,775 in 2017, the number of juice processing facilities decreased from 41 in 2003/2004 to 14 in 2016/2017, and the number of packinghouses decreased from 79 to 26 during the same period.⁵

There are many vital non-agricultural uses of pesticides as well. Aquatic weeds, for example, can threaten infrastructure, like dams and aqueducts, recreational areas, and crowd out natural wildlife, including endangered species and their critical habitat. In 2015 alone, the state of Florida and groups in the California Bay-Delta area spent \$22.5 million and \$15.8 million, respectively, controlling aquatic weeds.^{6,7}

² Soltani, Nader, J. Anita Dille, Ian C. Burke, Wesley J. Everman, Mark J. VanGessel, Vince M. Davis, and Peter H. Sikkema. N.D. *Potential yield loss in corn, soybean, dry bean, and sugar beet due to weed interference in North America*. Accessed July 28, 2023. <https://wssa.net/wp-content/uploads/Corn-soybean-drybean-and-sugarbeet.pdf>

³ U.S. Department of Agriculture. Natural Resources Conservation Service. April 2017. *Palmer Amaranth*. https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/archived-fact-sheets/palmer_amaranth_nrcs_national_factsheet.pdf

⁴ Helvacı, Murat. March 10, 2022. "Insect Pest Management in Fruit Production." *Fruit Industry*. <https://www.intechopen.com/chapters/80807>

⁵ Singerman, Ariel, and Michal E. Rogers. January 22, 2020. "The Economic Challenges of Dealing with Citrus Greening: The Case of Florida." *Journal of Integrated Pest Management*. Vol. 11, Iss. 1. <https://academic.oup.com/jipm/article/11/1/3/5700462>

⁶ Jetter, Karen M., and Kjersti Nes. University of California. Giannini Foundation of Agricultural Economics. December 6, 2018. "The Cost to Manage Invasive Aquatic Weeds in the California Bay-Delta." *Agriculture and Research Economics*. Vol. 21, No. 3. P. 9-11. https://s.giannini.ucop.edu/uploads/giannini_public/55/2a/552a7310-8134-48d9-b4cf-601aa3364f8e/v21n3_3.pdf

⁷ Mossler, Mark A., and Ken A. Langeland. University of Florida-Extension. N.D. *Florida Crop/Pest Management Profile: Aquatic Weeds*. Accessed July 30, 2023. http://www.orange.wateratlas.usf.edu/upload/documents/530_florida_crop_pest_management_aquatic_weed.pdf

Mosquito control is also a vital use of pesticides. From 1999-2014, West Nile Virus infections alone cost the United States an estimated \$778 million in health care and lost productivity, to say nothing of the costs of other mosquito-vector borne diseases.⁸ Pesticides are also used to protect our forests from pests, which can otherwise have a devastating economic and environmental impact and create greater wildfire risks. A recent study estimated that pests kill so many trees in U.S. forests that it amounts to increasing automobile emissions by 5 million cars annually, representing a significant driver of climate change.⁹ Without access to pesticides, the costs and damaging effects of these pests would be greatly increased.

Pesticides also help to maintain important conservation practices, which would be difficult, if not impossible, to establish at scale without access to these essential tools. For example, a 2020 study found that just two herbicide-tolerant crops in the U.S., corn and soybeans, and their companion herbicides enabled reductions in soil tillage and reduced tractor fuel use. The effect was sequestering enough soil carbon and reducing fuel emissions by an equivalent of 4.2 million cars in one year.¹⁰ A recent survey also found that nearly 80 percent of U.S. growers who use cover crops in their operations use herbicides to terminate the cover crop ahead of planting their primary crop given how effective and less timing dependent herbicides are compared to other termination methods.¹¹ Without access to pesticides, these conservation practices and the environmental benefits they confer would be threatened.

Generally, pesticides have many important roles and functions in our society. From protecting crops, preserving important public infrastructure, maintaining the health of our forests and important conservation efforts, to defending people against public health threats, the benefits they offer are immense and total in the billions of dollars annually. As we discuss below, we are greatly concerned the vulnerable species pilot would restrict access to these essential tools for hundreds of thousands – if not millions – of Americans, depriving them and their communities of the protections and benefits pesticides offer. This detrimental impact will only grow as the agency seeks to expand the pilot, as is suggested in the proposal. We implore EPA to consider our concerns described below and weigh them against the uses and benefits established above.

Concern with the Precautionary Nature of the Vulnerable Species Pilot

Specific to the vulnerable species pilot, we are alarmed with the proposal's inherently precautionary nature. The agency suggests it plans to implement these restrictions "before EPA has made effects determinations or completed any necessary consultation,"¹² which will impose "one set of mitigations for all conventional outdoor-use pesticides, regardless of their differences in exposure or potential effect."¹³ While we have specific questions about how this approach is consistent with the agency's obligations under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), which we detail

⁸ Staples, J. Erin, Manjunath B. Shankar, James J. Sejvar, and Martin I. Meltzer. March 5, 2014. "Initial and Long-Term Costs of Patients Hospitalized with West Nile Virus Disease." *The American Journal of Tropical Medicine and Hygiene*. Vol. 90, Iss. 3. P. 402-409. <https://www.ajtmh.org/view/journals/tpmd/90/3/article-p402.xml>

⁹ Wallheimer, Brian. Purdue University News. August 13, 2019. *Invasive pests kill so many trees each year, it's equal to 5 million car emissions*. <https://www.purdue.edu/newsroom/releases/2019/Q3/invasive-pests-kill-so-many-trees-each-year,-its-equal-to-5-million-car-emissions.html>

¹⁰ Brookes, Graham, and Peter Barfoot. July 24, 2020. "Environmental impacts of genetically modified (GM) crop use 1996–2018: impacts on pesticide use and carbon emissions." *GM Crops & Food*. Vol. 11, Iss. 4. P. 215-241. <https://www.tandfonline.com/doi/full/10.1080/21645698.2020.1773198>

¹¹ Hill, Sarah. October 5, 2021. "Glyphosate Still Most Effective Herbicide for Cover Crop Termination." *Cover Crop Strategies*. <https://www.covercropstrategies.com/blogs/1-covering-cover-crops/post/2072-glyphosate-still-most-effective-herbicide-for-cover-crop-termination>

¹² U.S. Environmental Protection Agency. Office of Chemical Safety and Pollution Prevention. Office of Pesticide Programs. June 2023. *Vulnerable Listed (Endangered and Threatened) Species Pilot Project: Proposed Mitigations, Implementation Plan, and Possible Expansion, Draft Plan*. P. 3.

¹³ *Vulnerable Species Pilot*. P. 4.

further below, we have more general concerns about what this proposal means for the scope of the pesticide program.

For EPA's pesticide program to become compliant with ESA, the agency must develop ways to integrate the two statutes. While we appreciate that ESA is not a risk-benefit based statute, FIFRA – the primary federal pesticide statute, which establishes the program framework – is decidedly a risk-benefit statute.¹⁴ Simply because the agency must incorporate ESA into its regulatory framework does not permit the agency to shed or supersede its FIFRA responsibilities or the risk-benefit regulatory paradigm that law establishes. As proposed, the vulnerable species pilot would set a disturbing precedent by suggesting pesticide users should be subject to broad and significant upfront restrictions on the vast majority of pesticide products without taking any steps to even consider whether a risk to species or habitats might occur. As a result, many agricultural operations, businesses, other pesticide users, and conservation efforts are likely to be irreparably harmed. We urge the agency to reconsider this precautionary regulatory shift – in this pilot and for its ESA implementation efforts moving forward – which unnecessarily endangers pesticide access for many stakeholders and the immense benefits they offer without any consideration of risk.

In this proposal, the agency is presupposing that any use of a pesticide will harm the vulnerable species rather than doing any type of risk assessment. It is a hazard-based approach when a risk-based approach should be undertaken.

Immense and Irreparable Harm to Farmers, Pesticide Users

Regarding its practical impacts, we are deeply concerned this proposal would result in an effective outdoor pesticide ban for many farmers, producers, businesses, and other pesticide users in the ranges of these outdoor species. This would place crops, orchards, livestock, infrastructure, conservation efforts, public health initiatives, and numerous other vital uses of pesticides at risk in these areas. Compounded, the implementation bottlenecks, lack of compliance options, cost of implementation, and novel legal vulnerabilities this proposal would create allow little-to-no compliance opportunity for users in the proposed pesticide use limitation areas (PULA), likely resulting in an effective pesticide ban for many users.

Lack of Reasonable & Practical Compliance Options

First, we are greatly troubled that there are few realistic options offered by the proposal for implementing erosion/runoff exposure mitigation and spray drift mitigation. Many of our organizations have commented on this matter in the ESA Work Plan and other EPA proposals, yet the agency does not seem to have addressed this matter in the vulnerable species pilot. Pesticide users in the PULAs for 25 of the 27 species currently in the pilot must adopt four erosion/runoff mitigations to continue to use nearly any outdoor pesticides. This will be immensely difficult for affected pesticide users.

For most row crop growers, several of the proposed erosion mitigation options are practical, such as reduced tillage and potentially cover crops. However, these practices may not be suitable for all grower operations – for example, growers in drier or northern regions would have trouble using cover crops, which could deplete soil moisture needed for primary crops or are challenging because of shorter growing seasons, respectively. The remaining options quickly become exorbitantly expensive to implement, as we discuss further below, or are impractical for other reasons. It would be incredibly difficult for many growers to adopt four of these practices, as the pilot requires.

¹⁴ FIFRA prevents pesticide use from resulting in “unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide.” 7 U.S.C. § 136(bb)

For example, the proposal to offer mitigation by avoiding the use of pesticides of a highly toxic hazard class to invertebrates does not make sense, as many of the species which this pilot is seeking to protect are neither invertebrates nor are reliant on invertebrates (e.g., pollination), and thus would not be protective to the species of concern. Also, each active ingredient in a class carries its own unique characteristics (toxicity profile and endpoints, solubility, degradation rates, etc.) which would make it inappropriate for the agency to indiscriminately group and exclude entire classes of individual active ingredients, which may pose greater or lesser risks.

Rate reduction by 40 percent is also a concerning mitigation proposal, as described in the pilot. While we appreciate EPA has provided a footnote that suggests compliance would occur via banded sprays, spot sprays, and precision agriculture sprayers, the mitigation chart requires clarification. As the agency is aware, reductions of application rates by diluting active ingredient is not only very unlikely to be effective at controlling pests, but it will also likely create enormous resistance management challenges in pest populations. These resistance pressures will not only affect users in PULAs, but elsewhere as resistant pest populations spread.¹⁵ We strongly encourage the agency to provide greater clarification on this mitigation.

We are greatly concerned for southern rice producers, as the agency has only proposed four mitigations which a producer must adopt to achieve compliance, two of which are the same concerning mitigations described above. This offers no flexibility for compliance. If a grower's operation is not suited to adopt these mitigations, they will be essentially banned from using pesticides. Given that some of the proposed PULAs contain significant rice producing areas, we are gravely concerned for growers in these areas.

Other user groups face similar challenges with the appropriateness of proposed mitigations. Some crops, such as onions, peanuts, potatoes, or sugarbeets necessitate soil disturbance as a means of production. To suggest these groups could implement reduced tillage is not practical. For many non-agricultural users, the compliance options are even less realistic. For example, it is unreasonable to expect roadside vegetation management, landscapers, golf courses, or mosquito control users to adopt vegetative filter strips, grassed waterways, cover crops, or other mitigations on the list. By not providing sufficient compliance options for these users, EPA is risking users in these PULAs from being precluded from using pesticides entirely, which will carry serious harmful implications for food, fiber, and fuel production, infrastructure protection, and public health efforts.

As we have previously advised to the agency during other ESA-related comment periods, some producers may be prohibited from implementation of mitigation practices entirely because of contractual obligations. In 2014, 39 percent of U.S. croplands were rented, for which 80 percent of landlords are absent and outside the local economic region where the rented property is located.¹⁶ Many agricultural producers who farm on these lands may not know their landlord or have a relationship with them. In these instances, it could be burdensome for the farmer to get permission to make structural modifications to rented land (e.g. installing riparian buffers, contour terracing), or it may even be prohibited by their contract. Further complicating this situation is contract duration. An Iowa State University survey found in the state that 41 percent of cash leases and 68 percent of crop share leases lasted for more than ten years.¹⁷ Growers who are locked into contracts prior to EPA establishing

¹⁵ Gressel, Jonathan. December 14, 2010. "Low pesticide rates may hasten the evolution of resistance by increasing mutation frequencies." *Pest Management Science*. Vol. 63, Iss. 3. P. 253-257. <https://onlinelibrary.wiley.com/doi/10.1002/ps.2071>

¹⁶ Bawa, Siraj G. and Scott Callahan. U.S. Department of Agriculture. Economic Research Service. March 2021. *Absent Landlord in Agriculture – A Statistical Analysis*. <https://www.ers.usda.gov/webdocs/publications/100664/err-281.pdf?v=837>

¹⁷ Leibold, Kelvin. Iowa State University-Extension and Outreach. Updated July, 2021. "Improving Your Farm Lease Contract – A guide to understanding the business of farmland leases." *Ag Decision Maker*. <https://www.extension.iastate.edu/agdm/wholefarm/html/c2-01.html>

these mitigation requirements, which they may not have the ability to implement, could place farmers at significant financial risk.

We are also concerned with the proposed spray drift mitigations for several reasons. First, the mitigations assume users to have the expertise to identify species habitat (we further detail this concern below). For example, the habitat of the Attwater prairie chicken, which would require spray drift mitigation under the vulnerable species pilot, is described as, “rangeland with few woody plants and a diversity of native or introduced grasses and forbs (e.g., non-woody flowering plants).”¹⁸ We would not reasonably expect most pesticide users to be able to differentiate this habit from non-habitat lands on which farmers may graze livestock and often treat with herbicides for weed control. For the Winged mapleleaf, the habitat is described as “locations with low sediment deposition and coarser and a more compacted sand and gravel mixture.”¹⁹ This description is ambiguous and subject to personal interpretation. To expect pesticide users to discern these frequently confusing and unclear descriptions places an enormous legal burden on users.

Additionally, while we appreciate the buffer distances established by the pilot are downwind and not omnidirectional, many of the distances are excessive. For some species, the pilot would establish buffers as great as 600 ft. for aerial applications and up to 200 ft. for ground applications. Buffers this large can leave enormous crop areas untreated, which can provide a refuge for damaging pests. We also do not believe these distances are supported by the best available science, as numerous real-world studies on spray drift which demonstrate spray drift does not travel as far as EPA’s models allege and that spray drift loads are not as significant as the agency claims.^{20,21} The science demonstrates these buffer distances are unnecessary to protect species and habitat and will unnecessarily harm pesticide users, leaving their operations vulnerable to pests.

We are also concerned with the practicality of prohibiting the use of finer droplet sizes, as would occur through the pilot, for several reasons. First, while applicators can use spray nozzles that produce coarser droplets, there are circumstances that can result in finer droplets even while using these tools. For example, if a sprayer exceeds certain applicator speeds droplets will naturally become finer, even if equipment is used for producing coarser droplets.²² Additionally, there are some types of pesticides which are more effective with certain droplet sizes. For example, contact herbicides require a more thorough coating on a weed to maintain product efficacy.^{23,24} The outright prohibition of fine and very fine droplets under the pilot may not be possible at all times and could diminish the efficacy of crop protection products, exposing users to greater pest damage.

The current draft also lacks any mention of the pressure on third-party applicators responsibilities, which will be enormous. Commercial pesticide applicators employed by agricultural retailers receive

¹⁸ *Vulnerable Species Pilot*. P. 18.

¹⁹ *Vulnerable Species Pilot*. P. 17.

²⁰ Desmarteau, Dean A., Amy M. Ritter, Paul Hendley, and Megan W. Guevara. October 7, 2019. “Impact of Wind Speed and Direction and Key Meteorological Parameters on Potential Pesticide Drift Mass Loadings from Sequential Aerial Applications.” *Integrated Environmental Assessment and Management*. Vol. 16, No. 2. P. 197-210. <https://setac.onlinelibrary.wiley.com/doi/full/10.1002/ieam.4221>

²¹ Brain, Richard, Greg Goodwin, Farah Abi-Akhar, Brian Lee, Carol Rodgers, Brian Flatt, Abby Lynn, Greg Kruger, and Dan Perkins. August 15, 2019. “Winds of change, developing a non-target plant bioassay employing field-based pesticide drift exposure: A case study with atrazine.” *Science of the Total Environment*. Vol. 678, P. 239-252. <https://www.sciencedirect.com/science/article/abs/pii/S004896971931962X?via%3Dihub>

²² Bond, Jason. Mississippi State University-Extension. March 11, 2011. *Ground Speed Affects Spray Droplet Deposition*. <https://www.mississippi-crops.com/2011/03/11/ground-speed-affects-spray-droplet-deposition/>

²³ Bond. *Ground Speed Affects Spray Droplet Deposition*.

²⁴ Butts, Thomas, and Greg Kruger. University of Nebraska-Lincoln. April 10, 2018. “Precise Spray Droplet Sizes for Optimizing Herbicide Applications.” *Crop Watch*. <https://cropwatch.unl.edu/2018/precise-spray-droplet-sizes-optimizing-herbicide-applications>

extensive education and training to apply pesticide products in accordance with FIFRA laws and regulations. EPA has financially supported training for certified commercial applicators through state grants. The programs generally cover Best Management Practices (BMP) for safe pesticide use as well as environmental issues such as endangered species and water quality protection. In addition, thousands of retailers and their commercial applicators have raised their professional status by participating in voluntary programs such as the Certified Crop Advisor (CCA) program administered by the American Society of Agronomy. EPA working with industry on the promotion of precision ag technologies, including adjuvants, is a common-sense way to help address ESA compliance without making FIFRA label and application requirements virtually unworkable and place unreasonable burdens on the industry or pesticide users.

Signatories of this letter have provided EPA with additional compliance options on past proposals, such as the ESA Work Plan, which inexplicably have not been incorporated into subsequent proposals. We strongly urge EPA to make additional reasonable, appropriate, and affordable measures available to users for compliance, and if the agency has concerns with measures that have been proposed by stakeholders in comments, to respond to comments to provide clarity as to the concerns. Furthermore, we advise the agency to withdraw and reconsider the pilot to address the feasibility of proposed mitigation measures and to address those provisions which would inadvertently harm pesticide users.

Cost of Implementation

As discussed, many of the proposed runoff and erosion control mitigations are impractical or impossible for users to implement. Others are exceedingly expensive to implement. A 2016 analysis estimated that in Iowa the average cost of establishing a riparian buffer could average \$330 per acre annually; a vegetative filter strip could cost \$233 per acre annually; constructing a wetland to allow the management of surface and subsurface water on the field was estimated to carry an upfront \$10,022 per acre cost with a cost of \$785 per acre in subsequent years.²⁵ A 1993 estimate from Missouri for establishing terrace cropping anticipates a cost range of \$100-\$250 per acre, depending on the terrace system.²⁶ Adjusted for inflation, this amounts to \$213.96-\$534.90 per acre in 2023.²⁷ A California conservation district estimate for installing a grassed waterway is expected “to be around \$1000 or more.”²⁸

While projects of this nature may be manageable on a single acre, extrapolated across hundreds or thousands of acres, costs quickly become unsustainable. For example, a row crop farmer looking to install vegetative filter strips across 5,000 acres would be looking at a cost of \$1.165 million annually. And this only represents the cost of implementing one conservation practice. To implement four, as would be required by the pilot, would represent a financial obligation of several million dollars annually, assuming a pesticide user even has sufficient mitigation options to implement. For most pesticide users, this cost would be financially ruinous and would place the user in a dilemma of bankruptcy or abandoning the use of pesticides, which would leave their operation defenseless against economically devastating pests.

²⁵ Tyndall, John C. and Troy Bowman. Iowa State University and Alabama A&M University. December 2016. *Iowa Nutrient Reduction Strategy BMP Cost Decision Tool Overview*. https://www.researchgate.net/publication/315496577_Iowa_Nutrient_Reduction_Strategy_BMP_Cost_Decision_Tool_Overview

²⁶ Schottman, Robert W., and John White. University of Missouri-Extension. October 1993. *Choosing Terrace Systems*. <https://extension.missouri.edu/publications/g1500>

²⁷ U.S. Bureau of Labor Statistics. N.D. *CPI Inflation Calculator*. Accessed July 28, 2023. <https://data.bls.gov/cgi-bin/cpicalc.pl>
Dates used for inflation adjustment calculator were January 1993 and June 2023.

²⁸ Yolo County Resource Conservation District. N.D. *Vegetated Ditches*. Accessed July 28, 2023. <https://yolorcd.org/resources/landowners/vegetated-ditches/>

Practical Implementation Challenges

There are several other reasons why we do not expect the vulnerable species pilot is practically implementable. For pesticide users in avoidance PULAs, which would represent the overwhelming majority of parties impacted by this proposal (minimization PULAs only extend for 2,600 ft. bubbles around avoidance PULAs for several species), the proposal is directing users to “coordinate with the local Fish and Wildlife Service (FWS) Ecological Services field offices to determine appropriate measures to ensure the proposed application is likely to have no more than minor effects on the species. The applicator must coordinate with FWS at least 3 months prior to the application.”²⁹ The pilot requires users in the avoidance PULAs for several species to coordinate only if they plan to apply pesticides on/around lands described as potential species habitat.

This proposal is entirely unworkable for numerous reasons. First, we do not believe there will be a practical difference between users in PULAs where all applications require coordination with the local FWS office and those PULAs where users only need to coordinate when pesticides are applied on/around potential habitat. As discussed further above, we believe most pesticide users do not possess the technical expertise to discern between habitat and non-habitat. They are not species experts and could expose themselves to significant legal vulnerability if they misjudge this matter. Functionally, we anticipate that users in all avoidance PULAs will seek to fulfill this coordination requirement.

Another concern is that local FWS Ecological Services field offices are in no way equipped to fulfill this obligation. In many cases, a local FWS species expert may cover multiple states encompassing hundreds of thousands of square miles. This individual is unlikely to be in their office, as they will be out in the field monitoring species and habitat, implementing recovery plans, among other responsibilities. Under this proposal, the agency expects this individual will be in a position to potentially coordinate with thousands of pesticide users throughout a PULA “to determine appropriate measures to ensure the proposed application is likely to have no more than minor effects on the species.”³⁰

There are other concerns. Just as pesticide users are not endangered species experts, we do not expect these local FWS individuals to be pesticide or agricultural experts and to be able to make reasonable recommendations on how to reduce pesticide application impacts to species and habitats. This requirement would also take the local FWS species experts away from their primary responsibilities of ensuring the wellness and recovery of species, which could result in greater harm to listed species and their critical habitat.

We also have questions and concerns with the burdens this proposal would place on state regulators. Under FIFRA, states carry the primary enforcement responsibility.³¹ The vulnerable species pilot creates a complex new set of requirements on pesticide labels under FIFRA which would likely fall on state regulators to enforce. This proposal would place a significant new resource strain and enforcement burden on the state agencies and their staff.

This proposal places new unreasonable implementation expectations and burdens on pesticide users as well. The requirement to coordinate with the local FWS office 3 months ahead of an application requires users to predict their pest management needs a minimum of 3 months into the future (it would likely be far greater if local FWS staff are backlogged with other coordination requests). This is practically impossible. Pest populations can flare up unpredictably depending on various weather, ecological, and

²⁹ *Vulnerable Species Pilot*. P. 19-20.

³⁰ *Vulnerable Species Pilot*. P. 19-20.

³¹ 7 U.S.C. § 136w-1(a)

other conditions.³² Novel pests, which pesticide users might have never previously encountered, may unexpectedly move into areas that might require treatment.³³ Pesticide users have no way of knowing if and when these pest threats will emerge. The requirement to predict these events 3 months or more in advance will effectively require pesticide users to leave crops, infrastructure, and public health initiatives defenseless against these destructive pests.

We are also concerned with the impact this proposal may have on the ability of farmers and other businesses to acquire financing and insurance. As detailed above, pests can cause significant damage to crops, infrastructure, and other financial investments. A business practically incapable of protecting its assets due to regulatory prohibitions will be a much riskier investment to a financier or insurer. USDA's Farm Service Agency (FSA) repeatedly cites applicant's ability to repay as a condition for financing of various types of loans.³⁴ The federal crop insurance program precludes loss payments to producers who fail to maintain good farming practices, which includes pest and disease management.³⁵ An analysis from 2020 found that endangered species listings reduced dryland agricultural land values by an average of 6 percent, or \$173/acre, demonstrating that ESA listings and subsequent land use restrictions can have a significant impact on a farmer's economic wellbeing.³⁶ Restrictions as austere as those proposed by the vulnerable species pilot could entirely foreclose lands in PULAs to future agricultural use by denying them essential operational tools, such as crop protection, insurance, and financing.

Realistically, the immense costs, lack of compliance options, and regulatory bottlenecks imposed by the proposed pilot will all but ensure many pesticide users in these areas are prohibited from using these vital tools in the future. This stands a strong likelihood of ending the continued viability of their farming and business operations, greatly harming the communities in which they reside. To prevent this immense, irreparable harm from resulting, we urge EPA to withdraw this deeply flawed proposal and work with stakeholders and coregulators on alternatives that can allow the agency to protect species and meet its ESA compliance obligations while not inflicting immense harm on pesticide users.

Violations of Statutory Obligations

While we have great concerns with the impracticality of the vulnerable species pilot and the feasibility of its implementation, we are also deeply troubled that EPA would be violating legal obligations under multiple statutes in this proposal.

Violations of the Endangered Species Act

First, there are several standards within ESA itself that the agency would fail to meet if it advances this pilot as proposed. The agency claims it is pursuing this action under Section 7(a)(2) of ESA to "ensure that any action authorized, funded, or carried out by the Agency... is not likely to jeopardize the continued existence of federally threatened and endangered (listed) species or destroy or adversely

³² Smith, Darsy and William Lamp. University of Maryland. N.D. "Unexpected Outbreak of Cowpea Aphid in Alfalfa." *Maryland Agronomy News*. Accessed July 29, 2023. <https://blog.umd.edu/agronomynews/2020/04/14/unexpected-outbreak-of-cowpea-aphid-in-alfalfa/>

³³ Hodgson, Erin. University of Iowa-Extension and Outreach. June 15, 2019. *Soybean Gall Midge Confirmed in Iowa and Nebraska*. <https://crops.extension.iastate.edu/cropnews/2019/06/soybean-gall-midge-confirmed-iowa-and-nebraska>

³⁴ U.S. Department of Agriculture. Farm Service Agency. Revised February 15, 2023. *FSA Handbook: Direct Loan Making*. https://www.fsa.usda.gov/Internet/FSA_File/3-flp_r02_a46.pdf

³⁵ U.S. Department of Agriculture. Risk Management Agency. N.D. *Good Farming Practices Protect Your Investment in Crop Insurance*. Accessed July 29, 2023. https://rma.usda.gov/-/media/RMA/Publications/Risk-Management-Publications/good_farming_practices.ashx?la=en

³⁶ Melstrom, Richard T. September 2, 2020. "The Effect of Land Use Restrictions Protecting Endangered Species on Agricultural Land Values." *American Journal of Agricultural Economics*. Vol. 103, Iss. 1. P. 162-184. <https://onlinelibrary.wiley.com/doi/10.1111/ajae.12127>

modify designated critical habitat.”³⁷ We appreciate the agency acknowledges that, as it is working to fulfill its obligations under the statute, it must adhere to the standards in the statute, such as the requirement to “use the best scientific and commercial data available” (we discuss this standard further below). However, another standard the agency must meet in ensuring fulfillment of this section is that proposed measures or alternatives to prevent jeopardy to a species or adverse modification of habitat (J/AM) must be “reasonable and prudent.”^{38,39}

Even though alternatives and measures to prevent J/AM must be reasonable and prudent, we believe the effective pesticide prohibition the vulnerable species pilot is likely to impose on users is neither prudent nor reasonable. The cumulative impact of these mitigations on users – which not only impedes their ability to protect crops, infrastructure, public health, and conservation practices, but threatens their continued economic viability – is austere and unreasonable. We strongly advise EPA to withdraw this proposal and work with stakeholders and coregulators on measures reasonable and prudent standard.

Also, while we appreciate EPA has committed to using the best scientific and commercial data available, the agency has neglected to meet that standard in multiple instances in this proposal. First, the agency has presupposed J/AM is likely to occur for all 27 species from every registered pesticide and is planning to implement these restrictions “before EPA has made effects determinations or completed any necessary consultation.”⁴⁰ This demonstrates the agency has not even feigned an attempt to use scientific and commercial data as a predictive indicator of whether J/AM is likely to occur for these species. In fact, as we describe further below, a review of analysis from FWS clearly establishes that the species included in this pilot are unlikely to experience J/AM from pesticide use.

Furthermore, EPA has significant scientific and commercial data available to the agency that it has failed to use in this analysis. For example, the USDA’s Natural Resources Conservation Service (NRCS) and National Agricultural Statistics Service (NASS) have county-level historical data on the adoption of existing conservation practices (many of the same practices directed by this proposal, such as cover crops and reduced tillage) which could show a protective effect for the species listed in this pilot and their habitats, which might alleviate J/AM concerns. However, EPA has not utilized this data in the vulnerable species pilot. EPA regularly uses data from the NASS’ Census of Agriculture – the same survey used to collect this conservation data – in its effect determinations for its biological evaluations (BE).^{41,42} There is no reason the agency could not use historical conservation data from USDA as well.

USDA has other data as well the agency should be using, such as pesticide usage rates from the Department’s chemical use surveys. Similar commercial usage data is available from the company Kynetec, for which EPA already purchases a subscription. This data would allow EPA to make more refined predictions of how users are actually using pesticides as opposed to using the agency’s current overly conservative assumptions, including that users are applying pesticides at the maximum rates possible, the maximum number of applications possible, and reapplying at the minimum reapplication

³⁷ *Vulnerable Species Pilot*. P. 3.

³⁸ 16 U.S.C. § 1536(b)(4)(a)

³⁹ 16 U.S.C. § 1536(b)(4)(a) and § 1536(g)(3)(a)(i) clearly establishes that the agency is subject to the reasonable and prudent standard.

⁴⁰ *Vulnerable Species Pilot*. P. 3.

⁴¹ U.S. Environmental Protection Agency. Office of Chemical Safety and Pollution Prevention. Office of Pesticide Programs. May 1, 2023. *Imidacloprid, Thiamethoxam and Clothianidin: Draft Predictions of Likelihood of Jeopardy and Adverse Modification for Federally Listed Endangered and Threatened Species and Designated Critical Habitats*. P. 155. <https://www.epa.gov/system/files/documents/2023-05/ESA-JAM-Analysis.pdf>

⁴² U.S. Environmental Protection Agency. Office of Chemical Safety and Pollution Prevention. Office of Pesticide Programs. January 19, 2023. *Cyantraniliprole: DRAFT Biological Evaluation Effects Determination for Endangered and Threatened Species and Designated Critical Habitats*. P. 39. <https://www.regulations.gov/document/EPA-HQ-OPP-2011-0668-0072>

interval. Using this data, which the agency currently fails to do, may allow EPA to alleviate J/AM concerns for which it seeking to impose restrictions via this pilot project.

Similarly, the agency has subcounty level maps available to it in some instances that might allow it to more narrowly tailor its mitigations to disrupt fewer pesticide users and still protect species and habitat. Yet, EPA arbitrarily relies exclusively on maps from FWS' Environmental Conservation Online System (ECOS), which can be overly broad.

For example, the scaleshell mussel is known to exist in the Missouri River between South Dakota and Nebraska downriver of Gavins Point Dam to slightly upriver from Sioux City, Iowa. Despite that the mussel is known only to reside in the river, FWS ECOs habitat map is drawn to encompass the entire counties adjacent to the river, stretching to include pesticide users nearly 30 miles from the river in places (Figure 1).⁴³ However, EPA has available to it maps from the Nebraska Games and Parks Commission, which shows the mussel is located in a narrow stretch of the Missouri River (Figure 2).⁴⁴ Even if the agency had conducted an effects determination and had concerns with tributaries feeding into the Missouri River, there are some pesticide users included in this unnecessarily broad ECOS range who operate adjacent to tributaries feeding into the Missouri River *downstream* from the mussel's range, and thus pose no exposure risk.

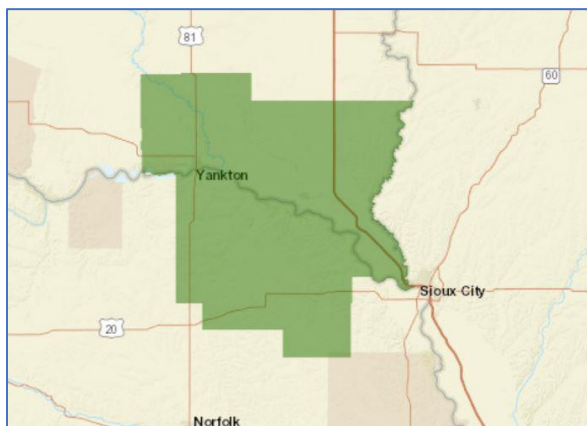


Figure 1: FWS ECOS Map

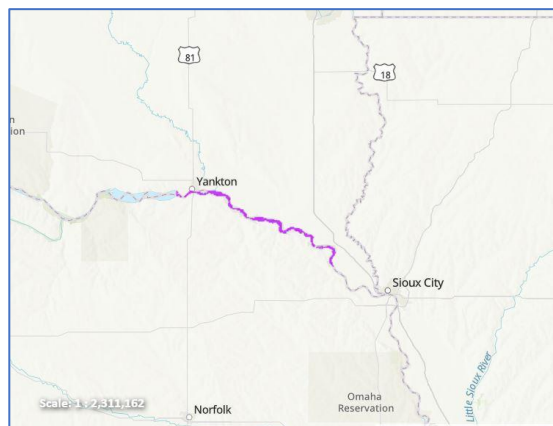


Figure 2: NGPC Map

This is just one of numerous examples throughout the vulnerable species pilot where the agency has adopted overly broad FWS ECOS maps instead of those from more refined sources, such as state wildlife agencies or the commercial service NatureServe. Instead of considering this more refined data as the basis for its mitigations, which would avoid unnecessarily restricting users many miles from a species' actual range who are highly unlikely to impact the species, the agency has chosen a more impactful alternative that will result in great harm to pesticide users.

We are also concerned the agency has opted to use overly conservative spray drift and water concentration models instead of real-world studies when they are available. These overly conservative models overstate the impact on species and habitat and are more likely to contribute to a J/AM finding than if the agency were to use real-world studies when available. We cite several studies above detailing how overly conservative the agency's AgDrift spray drift model is, though there are studies that also

⁴³ U.S. Fish and Wildlife Service. Environmental Conservation Online System. N.D. *Scaleshell mussel* (*Leptodea leptodon*). Accessed July 28, 2023. <https://ecos.fws.gov/ecp/species/5881>

⁴⁴ Nebraska Game and Parks Commission. Conservation and Environmental Review Tool. N.D. *Nebraska Conservation and Environmental Review Tool (CERT)*. Accessed July 28, 2023. <https://cert.outdoornebraska.gov/my-projects>

document this characteristic with EPA's Magnitude of Effect Tool (MAGTool) model and Pesticide in Water Calculator (PWC) models as well.⁴⁵

Given that the agency neglected to use *any* scientific or commercial data to develop these mitigations, to say nothing of using the best data or the other sources we offer in our comments, we are very confident EPA has not met this statutory requirement in this draft proposal. We would also remind the agency that even when the agency does conduct a risk assessment or effects determination, federal courts have recently found "'nothing' in the ESA required [federal agencies] to use 'a 'worst-case scenario' or make unduly conservative modeling assumptions...."⁴⁶ We urge the agency to withdraw this proposal and revise it to not only meet its legal obligations, but also to ensure species and habitat are protected while minimizing unnecessary impacts on pesticide users.

Finally, as it relates to the agency's ESA responsibilities, we are concerned that if EPA effectively prohibits pesticide use in the PULAs due to alleged J/AM risks, the agency may inadvertently be creating a net increase in J/AM risk to these species of concern. In both its biological opinion (BiOp) on malathion and its draft BiOp on Enlist, FWS cites studies showing that non-native species are the number one cause of endangerment in the U.S., followed by urbanization.^{47,48} Agriculture, generally (not even pesticides, specifically), is number three. In fact, the underlying study cited by FWS does not even cite pesticides as an agricultural stressor.

We have several concerns related to this analysis and how it ties back to the pilot. First, invasive species cause immense environmental and economic damage, estimated at over \$120 billion annually, and are the primary driver of risk to approximately 42 percent of all threatened and endangered species.^{49,50} As USDA's National Invasive Species Information Center (NISIC) notes, pesticides are an important part of integrated pest management (IPM) strategies for controlling invasive species.⁵¹ Pesticides have been well documented to assist with habitat and species recovery efforts from Florida to California.⁵² We are greatly concerned that, if the agency effectively prohibits pesticide across tens of thousands of square miles, as is likely to occur through the vulnerable species pilot, it will remove an indispensable tool often used by wildlife and habitat managers to protect endangered species and critical habitat.

Furthermore, as discussed above, we are greatly concerned this action will result in decreasing farmland values and prevent many agricultural operations and other rural businesses from remaining economically viable. While rural landowners far from urban areas are unlikely to have any economic alternatives or recourse for the decline in their land value, others in areas with greater demand for land

⁴⁵ Teed, R. Scott, Dwayne R.J. Moore, Oliver Vukov, Richard A. Brain, and Jay P. Overmyer. November 17, 2022. "Challenges with the current methodology for conducting Endangered Species Act risk assessments for pesticides in the United States." Integrated Environmental Assessment and Management. Vol. 19, No. 3. P. 817-829. <https://setac.onlinelibrary.wiley.com/doi/full/10.1002/ieam.4713>

⁴⁶ *Maine Lobstermen's Association v. National Marine Fisheries Service* No. 22-5238 (D.C. Cir. 2023)

⁴⁷ U.S. Fish and Wildlife Service. Ecological Services Program. February 28, 2022. *Biological and Conference Opinion on the Registration of Malathion Pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act*. P. 30-31.

⁴⁸ U.S. Fish and Wildlife Service. Ecological Services Program. May 15, 2023. *Draft Biological Opinion on the Registration of Enlist One and Enlist Duo Pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act*. P.

⁴⁹ Pimentel, David, Rodolfo Zuniga, and Doug Morrison. February 15, 2005. "Update on the environmental and economic costs associated with alien-invasive species in the United States." *Ecological Economics*. Vol. 52, Iss. 3. P. 273-288. <https://www.sciencedirect.com/science/article/abs/pii/S0921800904003027>

⁵⁰ U.S. Department of Interior. January 24, 2022. "Interior Department Calls for Nominations to Serve on Committee Coordinating Federal Actions on Invasive Species." <https://www.doi.gov/pressreleases/interior-department-calls-nominations-serve-committee-coordinating-federal-actions>

⁵¹ U.S. Department of Agriculture. National Invasive Species Information Center. N.D. *Control Mechanisms*. Accessed July 29, 2023. <https://www.invasivespeciesinfo.gov/subject/control-mechanisms>

⁵² Lim, XiaoZhi. April 12, 2022. "Herbicides emerge as an unexpected ally in the war on invasive plants." *Chemical and Engineering News*. Vol. 100, Iss. 13. <https://cen.acs.org/environment/pesticides/Herbicides-emerge-unexpected-ally-war-in-the-war-on-invasive-plants/100/i13>

– such as development – may have sales opportunities. In California from 1950-1993, urbanization resulted in the development of 9 million acres of agricultural land, or nearly one-quarter of the state total.⁵³ If the agency’s vulnerable species pilot results in foreclosing farmland for future agricultural use, which we have detailed above is likely to occur, it would result in a decline of land values and loss of agricultural revenue, which in turn would result in greater loss of farmland to urbanization. This land use transition could also result in J/AM risks to many species.

As noted above, FWS analysis states that non-native species and urbanization are greater stressors to endangered species than agriculture, generally – and certainly pesticides, specifically. Both non-native species and urbanization pressures would increase to many species and habitats from the vulnerable species pilot as proposed. Given that the agency has not conducted an effects determination or consultation to consider the novel J/AM risks likely to result from this action, we are concerned the agency would be failing to meet this ESA obligation. We advise the agency to withdraw this action and work with impacted stakeholders and coregulators to develop a proposal which will not result in greater risks to species and habitat.

Violations of the Federal Insecticide, Fungicide, and Rodenticide Act

In addition to not meeting the agency’s ESA obligations, this action would also place EPA in violation of FIFRA. As discussed earlier in these comments, we are concerned the agency via this pilot project is not seeking to integrate ESA into its FIFRA-based framework but is instead allowing ESA concerns to supersede its FIFRA responsibilities.

FIFRA directs EPA to “prescribe regulations to carry out the provisions of [FIFRA that]... shall take into account the difference in concept and usage between various classes of pesticides, including public health pesticides, and differences in environmental risk and the appropriate data for evaluating such risk between agricultural, nonagricultural, and public health pesticides.”⁵⁴ The agency has implemented these regulations, which include comprehensive processes for considering risks of pesticide use, engaging stakeholders, and taking public comment ahead of issuing final registration decisions.⁵⁵ The implementation methods EPA has described in the vulnerable species pilot – via regulatory fiat through Bulletins Live Two! (BLT) outside of the FIFRA regulatory process – entirely circumvent these FIFRA regulatory processes.

In fact, EPA openly admits in the pilot it plans to disregard FIFRA processes and allow ESA restrictions to supersede its FIFRA obligations. The agency states it “will also continue to incorporate the FIFRA Interim Ecological Mitigation (IEM) into its registration review decisions, as appropriate.... [yet] when these strategies overlap, EPA will generally use the spray drift and runoff/erosion mitigations from the Vulnerable Species Pilot instead of the IEM because the mitigations for the Vulnerable Species Pilot are considered more specific and protective for the vulnerable species in the pilot....”⁵⁶ Despite that EPA has not even conducted effects determinations or risk assessments and is supposing these mitigations are necessary and protective based entirely on conjecture, the implementation process detailed by the agency completely disregards its FIFRA statutory and regulatory obligations. We urge EPA to withdraw this flawed proposal and reconsider more appropriate ways to integrate ESA into the FIFRA regulatory process that does not ignore the agency’s FIFRA obligations.

⁵³ Sanders, Steve. May 1, 1998. “Perspective: Statewide farmland protection is fragmented, limited.” Vol. 52, No. 3. P. 5-11.
<https://calag.ucanr.edu/Archive/?article=ca.v052n03p5>

⁵⁴ 7 U.S.C. § 136w(a)(1)

⁵⁵ 40 C.F.R. Part 155

⁵⁶ *Vulnerable Species Pilot*. P. 45.

Violations of the Administrative Procedure Act

The Administrative Procedure Act (APA) also requires that agency actions are not “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law.”⁵⁷ We believe there is significant evidence to show that the vulnerable species pilot is all of these things. First, as discussed above, by the very fact that the agency is implementing all these onerous restrictions before conducting even a semblance of a risk assessment, effects analysis, or ESA consultation, which will inflict irreparable harm on pesticide users and the environment, constitutes a significant abuse of agency discretion. However, there is also considerable evidence to demonstrate this pilot project is also arbitrary and capricious, especially in the species it identifies for strict mitigation to prevent jeopardy.

In its final BiOp on malathion, FWS only identified ten of the 27 species named in this pilot as requiring reasonable and prudent general label or species-specific measures (RPM) to prevent J/AM.⁵⁸ Of those ten, all but three – the Wyoming toad, the Attwater’s greater prairie chicken, and the Buena Vista Lake ornate shrew – are located in a very small geographical range near the Lake Wales Ridge National Wildlife Refuge in Florida. Importantly, FWS was able to reach a no J/AM conclusion in the BiOp for every listed species and critical habitat with the implementation of several RPMs.

The Enlist draft BiOp reveals even less overlap with the 27 species named in the vulnerable species pilot. Of the species of concern identified by FWS that may face J/AM from Enlist use without RPMs, only two – the Attwater’s greater prairie chicken and the Poweshiek skipperling – coincide with the 27 species identified by the vulnerable species pilot. Like malathion, both species were found unlikely to experience J/AM with general and species-specific RPMs.⁵⁹ Insightfully, EPA originally predicted jeopardy might occur to the American Burying Beetle (ABB) – a species also included in the pilot – from the Enlist registration, imposing hundreds of county level bans where ABB is thought to reside. However, when the agency considered additional data which led it to believe J/AM was unlikely, it reversed these prohibitions.⁶⁰

Of the 27 species named in the vulnerable species pilot, only 12 were identified as potential species of concern by FWS in its two completed final and draft BiOps. Of those 12, only four occurred outside a small area near the Lake Wales Ridge National Wildlife Refuge, and FWS was able to reach a no J/AM conclusion for all species with the use of species-specific or general label RPMs in both BiOps. To that end, it is anything but clear how the agency selected the 27 species in this pilot. Most do not even appear in FWS BiOp analysis.

Even if the agency had conducted risk assessments or effects determinations and presented substantial evidence to suggest why these 27 species are uniquely vulnerable to pesticide exposures, which it has not, review of previous actions from the species experts at FWS demonstrates J/AM risk for these species can be avoided using general or species-specific RPMs. Arbitrarily selecting these 27 species and seeking to impose restrictions that will effectively and unnecessarily end the use of pesticides in their species ranges is a clear instance of an action that is arbitrary, capricious, and an abuse of discretion. To meet its APA obligations, we advise EPA to withdraw this pilot as proposed, conduct meaningful species effects determinations, reconsider its justifications for species selection, and consider reasonable and prudent measures that may be suitable to protect species while not unnecessarily encumbering pesticide users.

⁵⁷ 5 U.S.C. § 706(2)(a)

⁵⁸ U.S. Fish and Wildlife Service. *Biological and Conference Opinion on the Registration of Malathion*. Appendix A-D.

⁵⁹ U.S. Fish and Wildlife Service. *Draft Biological Opinion on the Registration of Enlist One and Enlist Duo*. P. 17-19.

⁶⁰ Erickson, Britt E. April 1, 2022. “US EPA lifts some countywide bans on Enlist herbicides.” *Chemical and Engineering News*. <https://cen.acs.org/environment/pesticides/US-EPA-lifts-countywide-bans/100/web/2022/04>

Regulatory Takings

We are also concerned the vulnerable species pilot's *de facto* prohibition on pesticide use would amount to a regulatory taking under the Fifth Amendment for many producers and businesses. Many lands in rural communities are suitable for agricultural uses only. To deny landowners the ability to protect crops or livestock from pests, which can inflict immense economic damage, significantly deprives property holders of a means to generate revenue from the land. This impact is amplified by the great likelihood that the property owners will be unable to acquire insurance or continued financing for their operations, depriving them of all economically viable use of their lands.⁶¹ As noted earlier in our comments, there are studies that show land values already experience significant depreciation when a listed species is identified on or near the property.⁶² We expect austere pesticide use restrictions to greatly intensify this outcome.

Furthermore, we impress upon the agency to seriously consider that these impacts will not be limited to a single business. In some instances, the PULAs proposed by the vulnerable species project include multiple contiguous counties spanning hundreds of square miles, likely impacting hundreds of farming operations and the businesses they support (e.g. agricultural retailers, grain elevators, packinghouses, processing facilities, banks, restaurants). Many of the rural communities in these areas are entirely dependent on the wellbeing of their agricultural producers for regional economic vitality. By destroying the agricultural economic engine of these rural economies, which would squelch any possibility of using the land for alternative economic activities, EPA will all but ensure agricultural landowners in many of these PULAs are deprived of all economically viable use of their lands.

Lack of Consultation with USDA, Interagency Working Group

We are also concerned that EPA may not have fulfilled its obligation to consult with USDA or other members of the federal interagency working group (IWG) on ESA implementation. In the *Consolidated Appropriations Act, 2023*, Congress gave EPA clear instructions that, "in developing measures [to reduce the effects of pesticides on listed species and critical habitat] ... the Administrator shall take into account the input received from the Secretary of Agriculture and other members of the interagency working group."⁶³ Given that there are many elements of the vulnerable species pilot that seem at odds with findings of USDA and FWS, which is also a member of the IWG, we are concerned the agency may not have consulted with these coregulators as Congress intended.

USDA and FWS are the federal experts on agriculture and listed species, and as such we expect they would have much input to provide on the feasibility and appropriateness of this proposal. We advise EPA to consult with these federal coregulators and consider their input, as directed by Congress.

Requirement to Perform Cost-Benefit Analysis Under Executive Order 12866

We would also remind EPA, given that under the vulnerable species pilot the agency plans to effectively prohibit the use of pesticides for thousands of businesses and operation across tens of thousands of square miles, that this would without doubt constitute an "economically significant" regulatory action with an impact greater than \$100 million annually under Executive Order 12866. As discussed above, we expect the effect of this proposal will easily total in the billions of dollars. This designation requires EPA to provide the Office of Information and Regulatory Affairs (OIRA) "a more detailed assessment of the likely benefits and costs of the regulatory action, including a quantification of those effects, as well as a

⁶¹ *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992)

⁶² Melstrom. The Effect of Land Use Restrictions Protecting Endangered Species on Agricultural Land Values.

⁶³ Pub. L. 117-328, div. HH, title VI, §711(b)(3)

similar analysis of potentially effective and reasonably feasible alternatives.”⁶⁴ We urge the agency to work within the interagency process to identify ways of meeting its legal obligations without imposing such significant economic impacts, as required by administrative policy.

Conclusion

While we support EPA seeking to become compliant with its ESA obligations, we are very concerned with the vulnerable species pilot, both for the practical impacts it will have on pesticide users and for the significant disregard it has for the agency’s legal obligations. This pilot project represents an egregious precautionary departure from EPA’s risk-based regulatory paradigm by imposing remarkably onerous pesticide restrictions, with which compliance is essentially impossible, all without the slightest attempt to ascertain risks to species or their habitats. The result will very likely be an effective pesticide ban for thousands of farmers, producers, businesses, and other pesticide users.

These users need pesticidal tools to produce food, fuel, and fiber, maintain important conservation practices, protect critical infrastructure, and uphold important public health efforts. These important public interests will all be significantly undermined by this proposal, resulting in billions of dollars of irreparable harm to individual producers, businesses, rural communities, and our environment – including quite possibly to the very species the proposal is intending to protect.

As disturbing is the significant disregard for the agency’s legal obligations posed by this pilot project. There are numerous requirements under ESA, FIFRA, APA, the U.S. Constitution, and other statutes that this proposal violates. This no doubt would result in great erosion of public confidence in the agency and science- and risk-based regulation.

To prevent the immense and irreparable harm posed by this deeply flawed proposal from coming to pass, we strongly urge the agency to withdraw the vulnerable species pilot as proposed. Furthermore, we advise the agency to work with coregulators and stakeholders, as required by the law, to develop practical solutions to protect species and meet the agencies legal obligations under ESA and FIFRA.

Sincerely,

Agribusiness Association of Iowa
Agribusiness Council of Indiana
Agricultural Council of Arkansas
Agricultural Retailers Association
Alaska Farm Bureau
American Dairy Coalition
American Farm Bureau Federation
American Seed Trade Association
American Soybean Association
American Sugar Alliance
American Sugarbeet Growers Association
AmericanHort
Aquatic Ecosystem Restoration Foundation
Aquatic Plant Management Society
Arizona Cotton Growers Association
Arizona Farm Bureau Federation

⁶⁴ Executive Office of the President of the United States. Office of Management and Budget. Office of Information and Regulatory Affairs. N.D. *Regulations and the Rulemaking Process*. Accessed July 30, 2023.
<https://www.reginfo.gov/public/jsp/Utilities/faq.jsp>

Arkansas Farm Bureau Federation
Arkansas Rice Federation
Arkansas Rice Growers Association
Arkansas Soybean Association
Associated Oregon Hazelnut Industries
California Agricultural Aircraft Association
California Alfalfa & Forage Association
California Citrus Mutual
California Cotton Ginners and Growers Association
California Farm Bureau
California Fresh Fruit Association
California Specialty Crops Council
California Strawberry Commission
California Walnut Commission
Colorado Farm Bureau
Colorado Fruit and Vegetable Growers Association
Colorado Livestock Association
Connecticut Farm Bureau Association
Connecticut Nursery and Landscape Association
Corn Refiners Association
Cotton Growers Coop
Council of Producers and Distributors of Agrotechnology
Delta Council
Empire State Council of Agricultural Organizations
Fairview Evergreen Nurseries, Inc.
Far West Agribusiness Association
Florida Farm Bureau Federation
Florida Fertilizer & Agrichemical Association
Georgia Cotton Commission
Georgia Farm Bureau
Georgia Fruit and Vegetable Growers Association
Georgia Urban Ag Council
Georgia/Florida Soybean Association
Idaho Dairywomen's Association, Inc.
Idaho Grain Producers Association
Illinois Corn Growers Association
Illinois Farm Bureau
Illinois Soybean Association
Indiana Corn Growers Association
Indiana Farm Bureau
Indiana Soybean Alliance
International Fresh Produce Association
Iowa Farm Bureau Federation
Iowa Soybean Association
Kansas Agribusiness Retailers Association
Kansas Association of Wheat Growers
Kansas Cooperative Council
Kansas Corn Growers Association
Kansas Farm Bureau
Kansas Grain and Feed Association
Kansas Grain Sorghum Producers Association

Kansas Soybean Association
Kentucky Soybean Association
Louisiana Agricultural Consultants Association
Louisiana Farm Bureau Federation
Maine Potato Board
Maryland Farm Bureau
Massachusetts Arborists Association
Massachusetts Association of Landscape Professionals
Massachusetts Association of Lawn Care Professionals
Massachusetts Farm Bureau Federation
Massachusetts Nursery and Landscape Association
Michigan Agri-Business Association
Michigan Green Industry Association
Michigan State Horticultural Society
Michigan Vegetable Council
Mid Atlantic Soybean Association
Mid-Atlantic Sports Field Management Association
Midwest Food Products Association
Midwest Forage Association
Minnesota Agri-Growth Council
Minnesota Canola Council
Minnesota Soybean Growers Association
Mississippi Farm Bureau Federation
Mississippi Soybean Association
Missouri Agribusiness Association
Missouri Farm Bureau
Missouri Soybean Association
Montana Agricultural Business Association
Montana Grain Growers Association
National Alfalfa & Forage Alliance
National Alliance of Independent Crop Consultants
National Association of Landscape Professionals
National Association of Wheat Growers
National Barley Growers Association
National Christmas Tree Association
National Cotton Council
National Council of Farmer Cooperatives
National Onion Association
National Pest Management Association
National Potato Council
National Sorghum Producers
National Sunflower Association
National Watermelon Association
Nebraska Farm Bureau Federation
Nebraska Soybean Association
Nevada Farm Bureau Federation
New England Sports Turf Managers Association
New Jersey Farm Bureau
New Jersey Nursery & Landscape Association
New Mexico Farm & Livestock Bureau
New York Corn & Soybean Growers Association

New York Farm Bureau
New York State Agribusiness Association
New York State Turfgrass Association, Inc.
Nisei Farmers League
North American Blueberry Council
North Carolina Egg Association
North Carolina Farm Bureau
North Carolina Soybean Producers Association
North Carolina Sports Field Management Association
North Carolina State Grange
North Central Weed Science Society
North Dakota Corn Growers Association
North Dakota Grain Growers Association
North Dakota Soybean Growers Association
Northeast Agribusiness & Feed Alliance
Northeastern Weed Science Society
Northern Canola Growers Association
Northern Pulse Growers Association
Northwest Agricultural Cooperative Council
Ohio AgriBusiness Association
Ohio Farm Bureau Federation
Ohio Soybean Association
Oklahoma Agribusiness Retailers Association
Oklahoma Soybean Association
Oregon Association of Nurseries
Oregon Cattlemen's Association
Oregon Dairy Farmers Association
Oregon Farm Bureau
Oregon Potato Commission
Oregon Seed Council
Oregon Wheat Growers League
Oregon Women for Agriculture
Oregon Women in Timber
Oregonians for Food & Shelter
Pacific Northwest Canola Association
Pennsylvania Farm Bureau
Pennsylvania Landscape & Nursery Association
Plains Cotton Growers, Inc.
Potato Growers of Michigan, Inc.
Red River Valley Sugarbeet Growers Association
Rhode Island Farm Bureau Federation
Rolling Plains Cotton Growers
Snake River Sugarbeet Growers Association
South Carolina Corn and Soybean Association
South Dakota Agri-Business Association
South Dakota Association of Cooperatives
South Dakota Soybean Association
South Texas Cotton & Grain Association
Southern Crop Production Association
Southern Rolling Plains Cotton Growers Association
Southern Weed Science Society

Southwest Council of Agribusiness
Sports Field Management Association
Synergistic Hawaii Agriculture Council
Tennessee Farm Bureau Federation
Tennessee Soybean Association
Texas Ag Industries Association
Texas Association of Dairymen
Texas Corn Producers Association
Texas Farm Bureau
Texas International Produce Association
Texas Soybean Association
Texas Vegetable Association
Texas Vegetation Management Association
Texas Wheat Producers Association
The Midwest Council on Agriculture
Tulare County Farm Bureau
U.S. Beet Sugar Association
US Canola Association
USA Dry Pea & Lentil Council
USA Rice
Vermont Farm Bureau
Virginia Farm Bureau
Virginia Soybean Association
Washington Association of Wheat Growers
Washington Friends of Farms and Forests
Washington Mint Growers Association
Washington State Potato Commission
Weed Science Society of America
Western Agricultural Processors Association
Western Alfalfa Seed Growers Association
Western Growers
Western Plant Health Association
Western Society of Weed Science
Wisconsin Agri-Business Association
Wisconsin Potato & Vegetable Growers Association
Wisconsin Soybean Association
Wyoming Ag Business Association
Wyoming Farm Bureau Federation