CENTER for BIOLOGICAL DIVERSITY

October 26, 2015

***Sent via Email and USPS Priority Mail Express, Signature Requested***
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United States Environmental Protection Agency
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**Re: Notice of Violations of the Endangered Species Act Regarding Registration of Benzovindiflupyr**

On behalf of the Center for Biological Diversity, we hereby provide notice, pursuant to Section 11(g) of the Endangered Species Act ("ESA"), 16 U.S.C. §1540(g)(2)(A)(i), that the United States Environmental Protection Agency ("EPA") is in violation of the ESA.

The Center for Biological Diversity ("Center") is a non-profit, public interest corporation with offices in Washington, D.C. and elsewhere in the United States, and over 900,000 members, with approximately 50,000 members in Washington, D.C. The Center and its members are dedicated to protecting diverse native species and habitats through science, policy, education, and law. Recognizing that pesticides are one of the foremost threats to the environment, biodiversity, and public health, the Center works to prevent and reduce the use of harmful pesticides and to promote sound conservation strategies. The Center commented on EPA's Proposed Conditional Registration of Benzovindiflupyr as a New Active Ingredient (Docket #: EPA-HA-OPP-2013-0141-0020).[1]

EPA has violated its ESA Section 7 duties to insure it does not jeopardize the continued existence of listed species or adversely modify or destroy their critical habitat in consultation with the expert fish and wildlife agencies regarding its discretionary decision to conditionally register the new active ingredient Benzovindiflupyr.[2] It has also violated Section 7 regarding its discretionary decisions to approve a technical and eight end-use products available for sale that include Benzovindiflupyr.[3] Moreover, EPA failed to consider the effects of three other already-registered active ingredients (Difenoconazole, Propiconazole and Azoxystrobin), that are also constituent ingredients in some of the end-use products and of which none have undergone

[1]Comment of Center for Biological Diversity, Docket #: EPA-HQ-OPP-2013-0141-0047.
[2] Conditional Registration Decision for the New Active Ingredient Benzovindiflupyr, Docket #: EPA-HQ-OPP-2013-0141-0066.
[3] A18993 Fungicide, Docket #: EPA-HQ-OPP-2013-0141-0056; Aprovia Fungicide, EPA-HQ-OPP-2013-0141-0057; A15457LG, Docket #: EPA-HQ-OPP-2013-0141-0058; A18126LG Fungicide, Docket #: EPA-HQ-OPP-2013-0141-0059; Aprovia Top Fungicide, Docket #: EPA-HQ-OPP-2013-0141-0060; Ascernity, Docket #: EPA-HQ-OPP-2013-0141-0061; Benzovindiflupyr Technical, Docket #: EPA-HQ-OPP-2013-0141-0062; Mural, Docket #: EPA-HQ-OPP-2013-0141-0063; and Elatus Fungicide, Docket #: EPA-HQ-OPP-2013-0141-0064.

consultation regarding their effects either.[4] EPA's failure to consult with the U.S. Fish and Wildlife Service ("FWS") and National Marine Fisheries Service ("NMFS") (collectively "the Services") is particularly egregious because in addition Benzovindiflupyr itself being toxic to several taxonomic groups, the other three active ingredients in these end-use products — Difenoconazole, Propiconazole and Azoxystrobin — are also toxic pesticides that are almost certainly harming hundreds of listed species.[5] Given that these fungicides are to be used on an extensive variety of crops in virtually every state, these active ingredients and these pesticide products will almost certainly cause irreparable harm to most listed species in the United States.

EPA's registration of Benzovindiflupyr — and its approval of eight end-use products — will likely jeopardize federally-listed species and adversely modify the critical habitat of listed species. Despite the likely harm to threatened and endangered species, EPA chose to register this pesticide without consultations to determine appropriate mitigation and measures to avoid jeopardizing listed species. EPA's failure to consult is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the ESA since its own ecological risk assessment concluded that exposure to Benzovindiflupyr, even after taking mitigation into account, would have acute and chronic impacts on aquatic and terrestrial species.[6] Many expected uses exceed the Levels of Concern for listed species of freshwater fish, estuarine/marine fish, freshwater invertebrates, estuarine/marine invertebrates, benthic invertebrates, birds and mammals, along with uncertainty concerning the impacts on terrestrial invertebrates.[7] EPA also found that the use of Benzovindifulpyr may adversely modify or destroy critical habitat as well as the Primary Constituent Elements (PCEs) of designated critical habitats of these listed species.[8] Furthermore, EPA's decision to limit its analysis to Benzovindiflupyr specifically and not the other compounds contained in the end-use products is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the ESA, because the other active ingredient compounds will almost certainly harm listed species.[9]

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[4] A18993 Fungicide, which combines Benzovindiflupyr, Propiconazole and other ingredients, Docket #: EPA-HQ-OPP-2013-0141-0056; A18126LG Fungicide, which combines Benzovindiflupyr, Azoxystrobin and other ingredients, Docket #: EPA-HQ-OPP-2013-0141-0059; Aprovia Top Fungicide, which combines Benzovindiflupyr, Difenoconazole and other ingredients, Docket #: EPA-HQ-OPP-2013-0141-0060; Ascernity, which combines Benzovindiflupyr, Difenoconazole and other ingredients, Docket #: EPA-HQ-OPP-2013-0141-0061; Mural, which combines Benzovindiflupyr, Azoxystrobin and other ingredients, Docket #: EPA-HQ-OPP-2013-0141-0063; and Elatus Fungicide, which combines Benzovindiflupyr, Azoxystrobin and other ingredients, Docket #: EPA-HQ-OPP-2013-0141-0064; *see also* Posting EPA-HQ-OPP-2013-0141 to Regulations.gov for Public Access, Docket #: EPA-HQ-OPP-2013-0141-0007.

[5] Difenoconazole is persistent in soil and the aquatic environment and a possible human carcinogen. *See, e.g.*, *http://www.epa.gov/opp00001/chem_search/cleared_reviews/csr_PC-128847_27-Jul-94_012.pdf*. In 2006, EPA concluded that Propiconazole has potential adverse effects on species protected under the ESA, including terrestrial and aquatic species. http://www.epa.gov/oppsrrd1/reregistration/REDs/propiconazole_red.pdf. Azoxystrobin is classified as highly toxic to freshwater fish and invertebrates and very highly toxic to estuarine/marine invertebrates on an acute exposure basis. (Docket #: EPA-HQ-OPP-2009-0835-002) (Summary Document for Azoxystrobin).

[6] Addendum to Environmental Fate and Ecological Risk Assessment for Benzovindiflupyr New Chemical Registration ("Addendum") at 5, Docket #: EPA-HQ-OPP-2013-0141-0021.

[7] *Id.* at 30-36.

[8] Environmental Fate and Ecological Risk Assessment for Benzovindiflupyr New Chemical Registration ("Ecological Risk Assessment) at 75, Docket #: EPA-HQ-OPP-2013-0141-0009.

[9] *See, supra*, note 5.

In addition, EPA is in violation of Section 9 of the ESA for allowing the "take" of listed species which will result from the use of Benzovindiflupyr and the eight end-use products.

## LEGAL BACKGROUND

### A. The Endangered Species Act

The ESA was enacted, in part, to provide a "means whereby the ecosystems upon which endangered species and threatened species depend may be conserved…[and] a program for the conservation of such endangered species and threatened species…."[10]

The ESA vests primary responsibility for administering and enforcing the statute with the Secretaries of Commerce and the Interior. The Secretaries of Commerce and the Interior have delegated this responsibility to the NMFS and the FWS respectively.[11]

Section 2(c) of the ESA establishes that it is "the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act."[12] The ESA defines "conservation" to mean "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary."[13] Similarly, Section 7(a)(1) of the ESA directs that the Secretary review "other programs administered by him and utilize such programs in furtherance of the purposes of the Act."[14]

In order to fulfill the substantive duties of the ESA, federal agencies are required to engage in consultation with FWS (and/or NMFS) to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of habitat of such species . . . determined . . . to be critical . . . ."[15]

Section 7 consultation is required for "any action [that] may affect listed species or critical habitat."[16] Agency "action" is broadly defined in the ESA's implementing regulations to include "(b) the promulgation of regulations; (c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or (d) actions directly or indirectly causing modifications to the land, water, or air."[17]

At the completion of consultation, FWS or NMFS issues a biological opinion that determines if the agency action is likely to jeopardize the species. If so, the opinion may specify reasonable

[10] 16 U.S.C. §§ 1531-1544; 16 U.S.C. § 1531(b).
[11] 50 C.F.R. § 402.01(b).
[12] 16 U.S.C. § 1531(c)(1).
[13] 16 U.S.C. § 1532(3).
[14] 16 U.S.C. § 1536(a)(1).
[15] 16 U.S.C. § 1536(a)(2) ("Section 7 consultation").
[16] 50 C.F.R. § 402.14.
[17] 50 C.F.R. § 402.02.

and prudent alternatives that will avoid jeopardy and allow the agency to proceed with the action.[18] FWS and NMFS may also "suggest modifications" to the action (called reasonable and prudent measures) during the course of consultation to "avoid the likelihood of adverse effects" to the listed species even when not necessary to avoid jeopardy.[19]

Section 7(d) of the ESA provides that once a federal agency initiates consultation on an action under the ESA, the agency, as well as any applicant for a federal permit, "shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section."[20] The purpose of Section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its obligations under Section 7(a)(2) that the action will not result in jeopardy to the species or adverse modification of its critical habitat.

Section 9 of the ESA prohibits any person, including federal agencies, from taking any endangered or threatened species.[21] The term "take" is defined broadly to include "harass, harm, pursue, hunt, shoot, wound, trap, kill, capture, or collect, or to attempt to engage in any such conduct."[22] "Harm" is further defined as "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."[23] Thus, an action which indirectly (e.g. habitat modification) or directly causes a decline in the population of an endangered species harms that species. Additionally, any action that precludes the recovery of an endangered species also falls within the meaning of harm.

Federal agencies may be limitedly exempt from the take prohibition through the issuance of an Incidental Take Statement ("ITS") as part of a Biological Opinion.[24] The ITS must identify the expected impacts of the authorized take, the reasonable and prudent measures necessary to minimize those impacts, and the terms and conditions that the agency must comply with to adequately implement those measures.[25]

### B. The Federal Insecticide, Fungicide, and Rodenticide Act

Congress enacted the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") to regulate the use of pesticides in the United States.[26] FIFRA charges EPA with registering, reviewing, amending, and reregistering chemicals and chemical formulations for use as insecticides,

[18] 16 U.S.C. § 1536(b).
[19] 50 C.F.R. § 402.13.
[20] 16 U.S.C. § 1536(d).
[21] 16 U.S.C. § 1538(a)(1)(B); 50 C.F.R. § 17.21(c).
[22] 16 U.S.C. § 1532(19); 50 C.F.R § 17.3.
[23] 50 C.F.R. § 17.3.
[24] 16 U.S.C. § 1536(o)(2); 50 C.F.R. § 402.14(i)(5).
[25] 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i)(1)(i)-(v).
[26] *See* 7 U.S.C. §§ 136-136y.

fungicides, and pesticides in the United States.[27] Under FIFRA, a fungicide generally may not be sold or used in the United States unless it has an EPA registration for that particular use.[28]

EPA may register a fungicide if it makes the following determinations: (1) the labeling complies with FIFRA's requirements; (2) the composition claims are warranted; (3) the fungicide will perform its intended function; and (4) the fungicide will not cause unreasonable adverse effects on the environment.[29] The culmination of the registration process is EPA's approval of a label for the particular fungicide. FIFRA makes it unlawful to use a fungicide in a manner inconsistent with the label,[30] or to make any claims that differ substantially from the label.[31] The ESA's Section 7 requirements apply to EPA's discretionary registration of fungicides under FIFRA, and its actions in exercising its continuing authority over fungicide regulation.[32]

## FACTUAL BACKGROUND

### A. Benzovindiflupyr Overview

Benzovindiflupyr belongs to the succinate dehydrogenase inhibitor pyrazolecarboxamides class. The registration is proposed for use on cereals, blueberries, corn, cottonseed, cucurbit vegetables, fruiting vegetables, legume vegetables, tuberous and corm vegetables, peanuts, pome fruit, small fruit vines climbing (except fuzzy kiwifruit), turf grass and ornamentals.

Benzovindiflupyr is formulated as a technical and eight end-use products. The proposed Benzovindiflupyr end use products are composed of Benzovindiflupyr as the single active ingredient (10.27% a.i.) or composed of multiple active ingredients, including: 7.5%:11.25% Benzovindiflupyr: Difenoconazole; 7.24%:12.07% Benzovindiflupyr: Propiconazole and in water dispersible granule formulations, Benzovindiflupyr (15% a.i.) and Azoxytrobin (30% a.i.).

Benzovindiflupyr is highly toxic and very persistent in terrestrial and aquatic environments, despite low application rate, causing exceedances of EPA levels of concern.[33] Because Benzovindiflupyr is highly persistent in both terrestrial and aquatic environments; the longevity for it to be available for runoff will be high after its application with high residence times expected in impacted water bodies and aquatic habitats.[34] EPA also found that the use of

[27] *Id.*
[28] 7 U.S.C. § 136a(a).
[29] 7 U.S.C. § 136a(c)(5).
[30] *Id.* § 136j(2)(G).
[31] *Id.* § 136j(1)(B).
[32] *Wash. Toxics Coalition v. EPA*, 413 F.3d 1024, 1032 (9th Cir. 2005) ("We agree with the Eighth Circuit that even though EPA registers pesticides under FIFRA, it must also comply with the ESA when threatened or endangered species are affected."); *Defenders of Wildlife v. Administration*, 882 F.2d 1294 (8th Cir. 1989) (affirming Section 7's application to EPA's registration of pesticides).
[33] Environmental Fate and Ecological Risk Assessment for Benzovindiflupyr New Chemical Registration ("Ecological Risk Assessment) at 7, 70, Docket #: EPA-HQ-OPP-2013-0141-0009; Proposed Conditional Registration Decision for the New Active Ingredient Benzovindiflupyr at 7, Docket #: EPA-HQ-OPP-2013-0141-0020.
[34] *Id.* at 6.

benzovindifulpyr may modify Primary Constituent Elements (PCEs) of designated critical habitats of these listed species.[35]

Even with the proposed mitigation, EPA determined "there are still broad risks of concern" indicated for freshwater fish, estuarine/marine fish, freshwater invertebrates and estuarine/marine invertebrates.[36] EPA reiterated that both acute and chronic exposure in aquatic environments is driven by the buildup of Benzovindiflupyr due to runoff from treated fields, particularly in regions where runoff is substantial.[37] EPA could not evaluate vegetative buffer strips as mitigation because of "large uncertainties which exist related to current maintenance practices of vegetative buffer strips." EPA also concluded "there are also still broad risks of concern indicated for mammals and birds" even accounting for the proposed mitigation measures.[38] And, for terrestrial invertebrates and beneficial insects, EPA found "there are still uncertainties which exist with acute oral and chronic exposures mainly due to data gaps."[39] Even with mitigation, levels of concern for acute listed species continue to be exceeded for many aquatic and terrestrial organisms for many uses, including listed freshwater fish, estuarine/marine fish, freshwater invertebrates, estuarine/marine invertebrates, benthic invertebrates, birds and mammals.[40]

### B. Azoxystrobin, Difenoconazole and Propiconazole Overview

Azoxystrobin is relatively persistent and mobile to moderately mobile.[41] Azoxystrobin is "highly toxic to freshwater fish and invertebrates and estuarine/marine fish and is very highly toxic to estuarine/marine invertebrates on an acute exposure basis."[42] Ecosystems potentially at risk from the use of Azoxystrobin include treated field and adjacent areas that may receive runoff and aquatic ecosystems including water bodies adjacent to, or downstream from, the treated field such as ponds, lakes, streams rivers, estuaries and other marine ecosystems.[43] The use of Azoxystrobin has steadily increased since 1997, with an estimated use of over 1.5 million pounds on agricultural land in 2012.

Difenoconazole was first registered in 1994, and has not been reviewed since. It does not appear that EPA conducted a full ecological risk assessment. Difenoconazole is persistent in soil and the aquatic environment and a possible human carcinogen.[44] It is also a suspected endocrine

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[35] *Id.* at 75.
[36] Addendum to Environmental Fate and Ecological Risk Assessment for Benzovindiflupyr New Chemical Registration ("Addendum") at 5, Docket #: EPA-HQ-OPP-2013-0141-0021.
[37] *Id.*
[38] *Id.* at 6.
[39] *Id.*
[40] *Id.* at 30-36.
[41] Problem Formulation for the Ecological Risk and Drinking Water Exposure Assessments in Support of the Registration Review of Azoxystrobin at 9, Docket#: EPA-HQ-OPP-2009-0835-0008.pdf.
[42] *Id.* at 16 and 4-5.
[43] *Id.* at 19 and 4-5.
[44] *See, e.g.*, Carcinogenicity Peer Review of Difenoconazole (*http://www.epa.gov/opp00001/chem_search/cleared_reviews/csr_PC-128847_27-Jul-94_012.pdf*);; *see also* PAN Pesticides Database – Chemicals – Difenoconazole (http://pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC35904#Toxicity).

disrupter.[45] It is highly toxic to shrimp and slightly toxic to fish.[46] The use of Difenoconazole has increased substantially since 2008, with an estimated use of over 0.2 million pounds on agricultural land in 2012.

Propiconazole is persistent and moderately mobile to relatively immobile.[47] In 2006, EPA concluded that Propiconazole has potential adverse effects on species protected under the ESA, including terrestrial and aquatic species. The screening-level risk assessment for Propiconazole indicates a potential for adverse effects on the following listed species: mammals, birds, terrestrial plants (monocots and dicots), freshwater fish, freshwater invertebrates (no data, EPA has a potential concern for listed species), estauarine/marine invertebrates, estuarine/marine fish (no data, EA has a potential concern for listed species), freshwater and estuarine/marine plants.[48] The use of Propiconazole has more than tripled since 2004, with an estimated use of over 1.5 million pounds on agricultural land in 2012.

When put together, these four pesticides are likely to either cause acute or chronic impacts on virtually all taxa:

| Listed Taxon | Benzovindiflupyr | Azosystrobin | Difenoconazole | Propiconazole |
|---|---|---|---|---|
| Terrestrial plants - monocots | | | | Yes |
| Terrestrial plants - dicots | | | | Yes |
| Aquatic plants | | Yes | | Yes |
| Birds | Yes | | | Yes |
| Terrestrial-phase amphibians | Not addressed | Not addressed | | Not addressed |
| Reptiles | Not addressed | Not addressed | | Not addressed |
| Mammals | Yes | | | Yes |
| Freshwater fish | Yes | Yes | Yes | Yes |
| Aquatic-phase amphibians | Not addressed | Not addressed | | Not addressed |
| Freshwater invertebrates | Yes | Yes | | Concern (no data) |
| Marine/estuarine fish | Yes | Yes | | Concern (no data) |
| Marine/estuarine inverts | Yes | Yes | | Yes |

[45] PAN Pesticides Database – Chemicals – Difenoconazole (http://pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC35904#Toxicity).
[46] *Id.* (http://pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC35904#Ecotoxicity).
[47] Reregistration Eligibility Decision (RED) for Propiconazole, EPA 738R-06-027 (July 2006) at 39.
[48] *Id.* at 52-53.

### C. EPA's Approval of Benzovindiflupyr a Technical and Eight End-Use Products

On April 19, 2013, EPA published a notice in the Federal Register announcing that it had received applications to register pesticide products with new active ingredients, including Benzovindiflupyr proposed for use as a technical product for manufacturing use only (Docket #: EPA-HQ-OPP-2013-0141).[49] On March 30, 2015, EPA published a notice in the federal register announcing that it had received applications to register new uses for pesticide products containing currently registered active ingredients, including Benzovindiflupyr for use on cereals, blueberries, corn, cotton, vegetable, small fruit, legumes, rapeseed, turf and ornamentals (Docket #: EPA-HQ-OPP-2013-0141).[50] On July 15, 2015, EPA posted an announcement to the docket on Regulations.gov announcing a proposed registration decision and the opening of a 30-day comment period beginning on July 15, 2015 and ending on August 15, 2015.[51]

The Center submitted a detailed comment letter by uploading it to Docket #: EPA-HQ-OPP-2013-0141 on regulations.gov on August 13, 2015 in response to the proposed registration of Benzovindiflupyr, stating that the EPA has an independent duty to consult with FWS and NMFS under the ESA on the registration of any new active ingredient that may affect protected species, as well as a duty to consult with FWS and NMFS on the approval of the eight end-use products.[52] The Center's comments noted that EPA had completely failed to assess any synergistic or cumulative impacts of the other three active ingredients in six of the end-use products.[53]

On August 28, 2015, EPA approved the registration of Benzovindiflupyr as a new active ingredient, a technical product and the eight end-use products.[54] EPA posted its decision and the final labels on regulations.gov on September 14, 2015.[55] In response to the Center's comments, EPA stated: "The Agency does not believe the environment or public would be best served by delaying the registration of benzovindiflupyr to complete consultation."[56] This rationale is illegal — no agency in the federal government may simply ignore its statutory duty to comply with the Endangered Species Act. Moreover, while EPA appears to acknowledge a duty to consult, it has not even initiated consultation, much less attempted to complete it.

In addition, with boilerplate nearly identical to earlier refusals to consult,[57] EPA states:

> The Agency is focusing most of its resources for assessing impacts to listed species on the Agency's registration review program for currently registered or

[49] 78 Fed. Reg. 23559 (April 19, 2013).
[50] 80 Fed. Reg. 16674 (Mar. 30, 2015). This notice is somewhat misleading because EPA had not yet registered Benzovindiflupyr.
[51] Public Participation for New Active Ingredient Benzovindiflupyr, Docket #: EPA-HQ-OPP-2014-0141-0007.
[52] Comment submitted by Stephanie M. Parent, Senior Attorney, Docket ID: EPA-HQ-OPP-2013-0141-0047.
[53] *Id*. at 2-3, 7.
[54] Docket #: EPA-HQ-OPP-2013-0141-0066.
[55] *See* Docket #: EPA-HQ-OPP-2013-0141.
[56] Docket #: EPA-HQ-OPP-2013-0141-0066 at 11.
[57] Response to Public Comments on EPA's "Proposed Registration of the New Active Ingredient Flupyradifurone" Docket #: EPA-HQ-OPP-2013-0226-0043.

> existing pesticides. This allows the Agency to focus on chemicals with higher risk, i.e., the "worst first", resulting in the greatest potential benefits for listed species. The EPA believes that, as a general matter, currently registered and existing pesticides may present a greater degree of risk to listed species than most new chemistries coming to market, and that it is therefore environmentally preferable in most circumstances for the EPA to assess the impacts of existing pesticides sooner in the process than newer pesticides that are designed to compete with more risky alternatives.[58]

This equivocal and ambiguous language does not justify a failure to comply with the ESA. EPA's discretionary decision to allow the use of more chemicals that its risk assessment demonstrates may affect listed species and their critical habitats is unreasonable, arbitrary, capricious and contrary to the ESA.

Moreover, six of the end-use products contain currently registered pesticides: Difenoconazole (first registered in 1994), Propiconazole (reregistered July 2006) and Azoxystrobin (in registration review, first registered 1981). The end-use product will contain *more* of the older and currently registered pesticides than Benzovindiflupyr in the following co-formulants: 7.5%:11.25% Benzovindiflupyr: Difenoconazole; 7.24%:12.07% Benzovindiflupyr: Propiconazole and in water dispersible granule formulations, Benzovindiflupyr (15% a.i.) and Azoxystrobin (30% a.i.).[59] To our knowledge, EPA has not initiated ESA consultation on any of these pesticides despite the fact that they have been in use for over three decades, during which time EPA has not complied with its existing duties under Section 7 of the ESA.

### D. Benzovindiflupyr Will Harm Listed Species

EPA's own ecological risk assessment demonstrates that Benzovindiflupyr will cause both acute and chronic adverse effects on listed species. Even with mitigation, levels of concern for acute listed species continue to be exceeded for many aquatic and terrestrial organisms for many uses, including listed freshwater fish, estuarine/marine fish, freshwater invertebrates, estuarine/marine invertebrates, benthic invertebrates, birds and mammals.[60] Benzovindiflupyr is proposed for widespread use on a range of crops.[61] It is very persistent in terrestrial and aquatic environments and likely to runoff treated areas.

There are 750 or more listed species that are likely to be harmed by the use of Benzovindiflupyr, including nearly 200 listed fish. Thus, EPA's claims that Benzovindiflupyr should not be prioritized for consultations rings hollow.

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[58] *Id.*
[59] *Id.* at 3.
[60] Addendum to Environmental Fate and Ecological Risk Assessment for Benzovindiflupyr New Chemical Registration ("Addendum") at 30-36, Docket #: EPA-HQ-OPP-2013-0141-0021.
[61] It is proposed for use on cereals, blueberries, corn, cottonseed, cucurbit vegetables, fruiting vegetables, legume vegetables, tuberous and corm vegetables, peanuts, pome fruit, small fruit vines climbing (except fuzzy kiwifruit), turf grass and ornamentals.

### E. Azoxystrobin, Difenoconazole and Propiconazole Will Harm Listed Species.

The end-use products containing Azoxystrobin, Difenoconazole and Propiconazole are also likely to be transported off-site and enter terrestrial and aquatic habitats of listed species. Despite this reality, EPA arbitrarily limited its analysis only to the active ingredient Benzovindiflupyr, without considering any cumulative, synergistic, or additive impacts from the other three active ingredients. In response to comments, EPA only stated the following:

> Regarding synergistic effects, the Agency does not routinely include a separate evaluation of mixtures of active ingredients, rather the EPA risk assessments focus on individual chemicals.[62]

Stating this truism does nothing to cure EPA's failure to comply with its ESA Section 7 duties.

EPA also did not consider the inert ingredients in the end-use products that hold the chemical mixtures together and comprise approximately 90% of some products and 55% of others. Inert ingredients, including surfactants and anti-foaming chemicals within a pesticide end product may also cause negative impact to listed species and here again EPA has never consulted with the Services under the ESA.[63]

These products may also be mixed with other products (tank mixing). EPA recognizes that "tank mixing is a common practice in agriculture."[64] Although the applicator must follow the most restrictive label of the many potential products that may be mixed, EPA has never consulted on the cumulative, synergistic, or additive impacts on threatened and endangered species.EPA has the authority and discretion to limit how Acuron is mixed with other pesticides and yet it elected to do nothing.

EPA only claims that if, *after* registration, Benzovindiflupyr is found to be harmful to listed species due to "evidence from incidents or field observations" then EPA would use its *Bulletins Live! Two* system to "set fourth geographically-specific pesticide use limitations for the protection of threatened and endangered species and their designated critical habitat."[65] The entire point of Section 7 is to protect endangered species from harm *before* such harm occurs. The Endangered Species Act does not give agencies permission to harm species and then wait until definitive proof of such harms occur in the real world before an agency needs to change its behavior. Moreover, *Bulletins Live! Two* **only** functions if the EPA initiates, and the Services complete ESA consultations. EPA cannot absolve its responsibilities to comply with the Endangered Species Act merely by acknowledging the harm to endangered species that exposure to Benzovindiflupyr will cause and pretending that one day it might do something beneficial for species down the road.

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[62] Conditional Registration Decision for the New Active Ingredient Benzovindiflupyr at 12, Docket #: EPA-HQ-OPP-2013-0141-0066.
[63] *Washington Toxics Coalition v. U.S. Dept. of Interior*, 457 F. Supp. 2d 1158 (W.D. Wash 2006).
[64] Conditional Registration Decision for the New Active Ingredient Benzovindiflupyr at 12, Docket #: EPA-HQ-OPP-2013-0141-0066.
[65] *Id.* at 11.

The reality is that Benzovindiflupyr alone in the abstract, and the end-use products in the real world, will clearly harm many hundreds of ESA-listed species. EPA's failure to consult is arbitrary and capricious and a clear violation of the Endangered Species Act.

## ESA VIOLATIONS

Consultation under Section 7 of the ESA is required whenever a discretionary agency action "may affect" any listed species or its critical habitat.[66] EPA's risk assessment makes clear that the "may affect" threshold is met for multiple listed species nationwide that could be harmed by Benzovindiflupyr and the eight end-use products. Thus, the trigger for consultations has been met, and the Endangered Species Act requires EPA to initiate consultation to ensure that the registration of Benzovindiflupyr and its approved products will not jeopardize any listed species or adversely modify critical habitat. EPA's refusal to initiate consultation prior to approving this new pesticide and its associated products violates EPA's Section 7 duty to consult under the ESA. EPA has failed to require *any* measures whatsoever to protect even a single endangered or threatened species from Benzovindiflupyr anywhere in the United States. As such, EPA's registration of Benzovindiflupyr and eight end-use products violates EPA's Section 7 duty to avoid jeopardizing the continued existence of any endangered species or threatened species, and to avoid the destruction or adverse modification of critical habitat of listed species.

Simply put, EPA's own risk assessment establishes that use of Benzovindiflupyr may affect listed species or adversely modify critical habitat. EPA's past ecological risk assessments of Azoxystrobin and Propiconazole have concluded that those active ingredients may affect listed species and adversely modify critical habitat. Available information concerning Difenoconazole also demonstrates it may affect listed species. EPA must satisfy its duty to avoid jeopardizing listed species, or adversely modifying their critical habitat, by initiating the consultation process for its actions in registering Benzovindiflupyr and the eight end-use products.

Section 9 of the ESA prohibits any person, including federal agencies, from taking any endangered or threatened species. Federal agencies may be limitedly exempt from the take prohibition through the issuance of an Incidental Take Statement ("ITS") as part of an Biological Opinion issued pursuant to Section 7 of the ESA. As discussed above, registration of Benzovindiflupyr and its products is a federal action that can cause the take of listed species due to the chemical's ability to harm and/or kill listed species. Consequently, in order to achieve safe harbor from ESA take liability in regard to Benzovindiflupyr, EPA must have written authorization from FWS and/or NMFS in the form of an ITS. Because EPA has thus far failed to even initiate consultation as to Benzovindiflupyr or the eight end-use products, it does not possess an ITS from the wildlife agencies and is therefore in violation of not only Section 7 of the ESA, but also Section 9 of the ESA.

[66] 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a) ("Each Federal agency shall review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat. If such a determination is made, formal consultation is required…"); *see Wash. Toxics Coalition v. EPA*, 413 F.3d 1024, 1032 (9th Cir. 2005); *Defenders of Wildlife v. Administration*, 882 F.2d 1294 (8th Cir. 1989).

## CONCLUSION

If EPA does not act within 60 days to correct the violations described in this letter, we will pursue litigation against EPA. If you have any questions, or would like to discuss this matter, please contact us.

Sincerely,

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