

Via Electronic and Certified Mail

March 4, 2021

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RE: Notice of Intent to Sue for Violations of the Endangered Species Act Concerning Denial of Protection for the Eastern Hellbender (*Cryptobranchus alleganiensis* alleganiensis)

Dear Acting Secretary de la Vega and Principal Deputy Director Williams:

The Center for Biological Diversity ("Center"), Waterkeeper Alliance, Inc., Lower Susquehanna Riverkeeper, Middle Susquehanna Riverkeeper, and Waterkeepers Chesapeake hereby notify you of their intent to sue the U.S. Fish and Wildlife Service ("Service") for violations of the Endangered Species Act ("ESA")<sup>1</sup> in connection with the Service's finding, made during the previous administration, that the eastern hellbender (*Cryptobranchus alleganiensis*) does not warrant listing as a threatened or endangered species (not warranted finding).<sup>2</sup> The Service's arbitrary and unlawful decision deprives this imperiled salamander of the protection it needs to survive against ongoing habitat degradation and numerous other threats.

The eastern hellbender is a large, fully aquatic salamander that is struggling for existence because of unabated threats to the clean, clear streams it needs to survive. The best available scientific data and the Service's own findings in a Species Status Assessment Report ("SSA"),<sup>3</sup> demonstrate that the hellbender is in steep decline. More than three quarters of the hellbender's populations are extirpated or declining, and future projections all show accelerated further losses.

<sup>&</sup>lt;sup>1</sup> 16 U.S.C. § 1531 et seq.; 50 C.F.R. § 402 et seq.

<sup>&</sup>lt;sup>2</sup> 82 Fed. Reg. 46,618 (Oct. 5, 2017).

<sup>&</sup>lt;sup>3</sup> U.S. Fish and Wildlife Service. 2018. Species status assessment report for the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*).

Consequently, the species is at serious risk of disappearing over large areas of its remaining range within the eastern United States. The main drivers of these declines are ongoing and projected to continue into the foreseeable future, meaning the hellbender can expect no reprieve.

Despite finding that the hellbender has suffered—and will continue to suffer—steep declines due to significant and unabated threats, the Service issued a 12-month, not warranted finding for the hellbender concluding that the species is not endangered or threatened. As detailed in this Notice, the Service's decision is unlawful and failed to rely on the best scientific and commercial data available in several respects, including by: (1) arbitrarily relying on admittedly unproven and ineffective conservation measures; (2) failing to consider the adequacy of existing regulatory mechanisms; (3) arbitrarily concluding that the hellbender is not endangered or threatened in a significant portion of its range; (4) failing to provide a rational explanation for its choice to limit the foreseeable future analysis regarding the hellbender and its threats to 25 years (shorter than a single generation's expected lifespan); and (5) conflating the Act's definitions of endangered and threatened such that it did not determine whether the species was threatened. The Service's clear disregard for the legal requirements of the ESA and the best available scientific information about the species led to an arbitrary and unlawful decision. If the Service does not remedy the violations of law outlined in this letter within 60 days, the organizations to this Notice will file suit in federal court to resolve the matter.<sup>4</sup>

#### **BACKGROUND**

### The Eastern Hellbender

The eastern hellbender is a large, fully aquatic salamander that lives in clear, clean streams of the eastern United States. Reaching nearly two feet in length, it is the largest native amphibian in North America.

The hellbender is primarily nocturnal and remains under cover during the day. At night, it uses ambush tactics to hunt crayfish, and occasionally small fish, insects, and frogs. Though it can move quickly to avoid predators, the hellbender generally leads a minimally active life. Its home range is relatively small, from approximately 30 to 2,200 square meters.

The hellbender can live at least 25-30 years in the wild, though one study suggests it may live to be older than 50 years. At every life stage, the eastern hellbender needs free-flowing, cool, clean, highly oxygenated streams with boulders and crevasses to survive. Hellbenders were historically widespread across 15 eastern states, ranging from northeastern Mississippi, northern Alabama, and northern Georgia northeast to southern New York. Within this range, the eastern hellbender "consists of four evolutionary lineages that are distinct from each other: the Ohio River-Susquehanna River drainages, the Kanawha River drainage, the Tennessee River drainage,

<sup>&</sup>lt;sup>4</sup> This notice is being provided in accordance with Section 11(g) of the Endangered Species Act, 16 U.S.C. § 1540(g).

<sup>&</sup>lt;sup>5</sup> SSA, at 3.

and the Missouri River drainage." The "genetic variation within the separate lineages is up to four orders of magnitude lower than the variation among the lineages."

Hellbender abundance has "decreased in many parts of the range, with reduced numbers observed as early as 1948." These declines are "often characterized as severe or drastic." Hellbender declines are driven by myriad human-caused impacts, including sedimentation, water quality degradation, direct mortality or permanent removal of animals, disease, habitat disturbance (including by dams and other water impoundments), increased abundance of species of predators, climate change, and the synergistic effects of these impacts. Across the range, experts have identified sedimentation as the factor most impacting the status of the species," arising from "multiple sources, including agriculture, silviculture, oil and gas development, residential development, off-road vehicles, impoundments, and instream gravel mining."

#### **Statutory Framework**

The Endangered Species Act is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." The ESA is intended to protect and recover species that the Service determines to be "threatened" or "endangered." Endangered" means the species "is in danger of extinction throughout all or a significant portion of its range." Threatened" means the species is "likely to become an endangered species within the foreseeable future." The definition of "species" includes "subspecies" and "distinct population segments of any species of vertebrate fish or wildlife which interbreeds when mature."

Section 4 of the ESA permits private parties to petition the Service to add a particular species to the Service's formal list of threatened and endangered species.<sup>17</sup> The Service is then directed to make a preliminary finding within 90 days.<sup>18</sup> Assuming it finds "substantial information indicating that the petitioned action may be warranted," the Service must publish that finding and proceed to conduct a full scientific review of the species' status.<sup>19</sup> Based on that review, the Service has 12 months to either issue a "not warranted" finding (thus rejecting the

<sup>&</sup>lt;sup>6</sup> 12-month finding, 84 Fed. Reg. at 13232.

<sup>&</sup>lt;sup>7</sup> SSA, at 23.

<sup>&</sup>lt;sup>8</sup> SSA, at 29.

<sup>&</sup>lt;sup>9</sup> SSA, at 29.

<sup>&</sup>lt;sup>10</sup> 12-month finding, 84 Fed. Reg. at 13227-13228.

<sup>&</sup>lt;sup>11</sup> SSA, at 35-36.

<sup>&</sup>lt;sup>12</sup> Tenn. Valley Auth. v. Hill, 437 U.S. 153, 180 (1978).

<sup>&</sup>lt;sup>13</sup> 16 U.S.C. § 1533(a).

<sup>&</sup>lt;sup>14</sup> *Id.* § 1532(6).

<sup>&</sup>lt;sup>15</sup> *Id.* § 1532(20).

<sup>&</sup>lt;sup>16</sup> *Id.* § 1532(16). Consistent with the ESA's definition of species, this letter refers to the eastern hellbender subspecies as a "species" throughout.

<sup>&</sup>lt;sup>17</sup> *Id.* § 1533(b)(3)(A).

<sup>&</sup>lt;sup>18</sup> *Id*.

<sup>&</sup>lt;sup>19</sup> *Id*.

petition) or a proposed rule adding the species to either the endangered or threatened list.<sup>20</sup> If the Service proposes to list the species under either category, it then has 12 more months to make a final decision.<sup>21</sup>

When making listing determinations, the ESA requires the Service to determine whether any species is an endangered species or a threatened species because of five enumerated factors:

- (A) the present or threatened destruction, modification, or curtailment of a species' habitat or range;
- (B) overutilization for commercial, recreational, scientific, or educational purposes;
- (C) predation or disease;
- (D) the inadequacy of existing regulatory mechanisms; and
- (E) other manmade or natural factors affecting the species' continued existence.<sup>22</sup>

If a species meets the definition of "endangered" or "threatened" because of *any one or a combination* of these five factors, the Service must list the species.<sup>23</sup> In evaluating these factors, the Service must make listing determinations "solely on the basis of the best scientific and commercial data available."<sup>24</sup>

In 2003, the Service announced its Policy for Evaluation of Conservation Efforts When Making Listing Determinations ("PECE").<sup>25</sup> Recognizing that conservation efforts may vary in effectiveness, the PECE directs that "conservation efforts that are not sufficiently certain to be implemented and effective cannot contribute to a determination that listing is unnecessary or a determination to list as threatened rather than endangered."<sup>26</sup> Stated another way, "the point of the [PECE] was to establish criteria for determining when the Service could deem otherwise incomplete and unproven conservation efforts sufficiently certain to be implemented and effective to be relied on in evaluating ESA's listing factors."<sup>27</sup>

The lawfulness of the Service's listing decisions is governed by Administrative Procedure Act ("APA") standards of review.<sup>28</sup> The APA directs that courts "shall" set aside agency actions, findings, or conclusions that are determined to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."<sup>29</sup> In reviewing whether an agency decision is arbitrary and capricious, courts must "ensure that the agency considered the relevant

<sup>&</sup>lt;sup>20</sup> *Id.* § 1533(b)(3)(B).

<sup>&</sup>lt;sup>21</sup> Id. § 1533(b)(6)(A).

<sup>&</sup>lt;sup>22</sup> *Id.* § 1533(a)(1).

<sup>&</sup>lt;sup>23</sup> *Id.*; 50 C.F.R. § 424.11(c); *see also Fed'n of Fly Fishers v. Daley*, 131 F. Supp. 2d 1158, at 1164 (N.D. Cal. 2000) ("These factors are listed in the disjunctive; any one or a combination can be sufficient for a finding that a particular species is endangered or threatened.").

<sup>&</sup>lt;sup>24</sup> 16 U.S.C. § 1533(b)(1)(A).

<sup>&</sup>lt;sup>25</sup> 68 Fed. Reg. 15100 (March 28, 2003).

<sup>&</sup>lt;sup>26</sup> PECE, 68 Fed. Reg. at 15115.

<sup>&</sup>lt;sup>27</sup> Defenders of Wildlife v. Jewell, 815 F.3d 1, 8 (D.C. Cir. 2016).

<sup>&</sup>lt;sup>28</sup> 5 U.S.C. §§ 701-706.

<sup>&</sup>lt;sup>29</sup> *Id.* § 706(2)(A).

factors and articulated a rational connection between the facts found and choices made."<sup>30</sup> An "agency rule would be arbitrary and capricious if the agency relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."<sup>31</sup>

## The Center's Petition to List the Eastern Hellbender

On April 20, 2010, the Center and allies petitioned the Service to list the eastern hellbender as threatened or endangered under the ESA.<sup>32</sup> On September 27, 2011, the Service issued a positive 90-day finding for the eastern hellbender, determining the petition presented substantial scientific information indicating that listing may be warranted because of "habitat loss and overuse," as well as other factors.<sup>33</sup>

## The Center's Litigation to Compel a 12-Month Finding

In June 2013 the Center sued to compel the Service to issue the required but overdue 12-month finding.<sup>34</sup> On September 23, 2013, the Center and the Service entered a stipulated settlement agreement that the Service would submit to the Federal Register a 12-month finding on the petition to list the hellbender by September 30, 2018.<sup>35</sup>

## The Eastern Hellbender Species Status Assessment Report

In order to inform the required 12-month finding, on July 20, 2018, the Service issued its Final Species Status Assessment Report for the eastern hellbender. An SSA is typically "conducted at or prior to the candidate assessment or 12-month finding stage," and is intended to "characterize[] a species' ability to sustain populations in the wild over time based on the best scientific understanding of current and future abundance and distribution within the species' ecological setting."

<sup>&</sup>lt;sup>30</sup> Greater Yellowstone Coal., Inc. v. Servheen, 665 F.3d 1015, 1023 (9th Cir. 2011).

<sup>&</sup>lt;sup>31</sup> Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

<sup>&</sup>lt;sup>32</sup> Petition to List 404 Aquatic, Riparian and Wetland Species from the Southeastern United States as Threatened or Endangered under the Endangered Species Act from the Center for Biological Diversity, Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, West Virginia Highlands Conservancy, Tierra Curry and Noah Greenwald, April 20, 2010.

<sup>&</sup>lt;sup>33</sup> 76 Fed. Reg. 59836 (Sept. 27, 2011).

<sup>&</sup>lt;sup>34</sup> Ctr. for Biological Diversity v. Jewell, Case No. 1:13-cv-00975-EGS (D.D.C.).

<sup>&</sup>lt;sup>35</sup> *Id.*, Docket No. 7.

<sup>&</sup>lt;sup>36</sup> U.S. Fish and Wildlife Service Species Status Assessment Framework version 3.4, at 4 (August 2016) ("SSA Framework").

This 104-page eastern hellbender SSA includes seven chapters: analytical framework and methods, species ecology, analysis of historical condition, analysis of current condition, risk and conservation factors, analysis of future condition, and synthesis.<sup>37</sup>

The SSA states that the eastern hellbender subspecies was historically "broadly distributed with 570 populations occurring in 15 eastern U.S. states and across spatially heterogeneous environments" spanning the four lineages, which it refers to as "adaptive capacity units" or "ACUs." <sup>38</sup>

Today, however, the SSA notes that "the species has undergone a widespread decline with 39% of the populations believed extirpated or functionally extirpated and another 38% declining." Remaining populations are heavily concentrated in the Ohio River or Susquehanna River drainages (44% of populations) and Tennessee River drainage (45% of population), with smaller numbers in the Kanawha River drainage (10% of populations) and Missouri River drainage (1% of populations). The SSA acknowledges that "conserving the full breadth of representation should involve maintaining populations across and within the four distinct lineages."

In order to "assess the health, number, and distribution of populations through time," the SSA uses "status and trend categories that define a population's status as extant, extirpated, or unknown." Extirpated populations are divided into two categories—presumed and functionally extirpated. Extant populations are divided into four trends: stable-recruiting (healthy), recruiting with unknown trend, declining, and extant with unknown trend. Of the 345 known extant populations (61% of historic) of eastern hellbender, the Service estimates that only 126 of these remaining populations are currently healthy.

The SSA analyzes the predicted future condition of eastern hellbender populations over the next 10 and 25 years. 46 Using a four-step method, species experts provided individual

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<sup>&</sup>lt;sup>37</sup> Prior to issuance of the SSA and 12-month finding, on October 7, 2017, the Center submitted a letter providing updated scientific information for the eastern hellbender. This letter, supported by peer-reviewed scientific literature, explained that hellbenders were continuing to decline across their range.

<sup>&</sup>lt;sup>38</sup> SSA, at 74.

<sup>&</sup>lt;sup>39</sup> SSA, at 74.

<sup>&</sup>lt;sup>40</sup> SSA, at 27. The Tennessee and Kanawha drainages are also within the Ohio River watershed, while the Susquehanna River is within the Chesapeake Bay watershed. Given that Susquehanna River populations are the only major lineage *not* within the Ohio/Mississippi River drainages, it is unclear why the Service chose to lump the Susquehanna River populations within the Ohio River populations.

<sup>&</sup>lt;sup>41</sup> SSA, at 24.

<sup>&</sup>lt;sup>42</sup> SSA, at 12.

<sup>&</sup>lt;sup>43</sup> SSA, at 12.

<sup>&</sup>lt;sup>44</sup> SSA, at 12.

<sup>&</sup>lt;sup>45</sup> SSA, at 32.

<sup>&</sup>lt;sup>46</sup> SSA, at 57.

estimates of "reasonable worst," "reasonable best," and "most likely" future plausible scenarios for each of the timeframes.<sup>47</sup> Because the Service claims that "most experts had little confidence in predictions beyond 25 years," the SSA only "forecast the health and distribution of populations into the future at 10- and 25-year increments."

"Using these experts' judgments, eastern hellbender is predicted to continue to decline over the next 25 years under both reasonable best and worst-case scenarios, with 41% to 65% of the extant populations declining and a 19 to 84% increase in the number of extirpated populations." The Service concluded that "[r]egardless of the scenario, the number of healthy populations is predicted to remain well below historical conditions." <sup>50</sup>

The SSA states that "[t]here are a few key assumptions that are particularly important to bear in mind" in relation to the experts' predictions. "First, many of the future best-case scenario predictions assume that ongoing and future population augmentation and habitat restoration efforts will be successful." The Service, however, acknowledges that "augmentation is still in its infancy and little data exist as to whether augmentation is logistically possible at a broad scale." Service whether augmentation is logistically possible at a broad scale.

In addition, "[m]any of the future best-case scenario predictions are contingent on threats being reduced and habitat conditions improving." The SSA acknowledges, however, that "[l]ittle data exist that provide evidence of reduced negative influences, such as sedimentation, water quality degradation and improved stream conditions, over the next 25 years." 54

### **The 12-Month Not Warranted Determination**

On April 4, 2019, the Service issued a 12-month finding that listing the eastern hellbender as endangered or threatened is not warranted.<sup>55</sup> Relying on "the key results and conclusions from the SSA report," the Service determined that "[b]ased on our review of the best available scientific and commercial information pertaining to the five factors, we find that the stressors acting on the eastern hellbender and its habitat, either singly or in combination, are not of sufficient imminence, intensity, or magnitude" to warrant listing as threatened or endangered throughout all or a significant portion of its range.<sup>56</sup>

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<sup>47</sup> SSA, at 14.
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<sup>&</sup>lt;sup>48</sup> SSA, at 14.

<sup>&</sup>lt;sup>49</sup> SSA, at 74.

<sup>&</sup>lt;sup>50</sup> SSA, at 65.

<sup>&</sup>lt;sup>51</sup> SSA, at 75.

<sup>&</sup>lt;sup>52</sup> SSA, at 75.

<sup>&</sup>lt;sup>53</sup> SSA, at 75.

<sup>&</sup>lt;sup>54</sup> SSA, at 75.

<sup>&</sup>lt;sup>55</sup> 12-Month Petition Finding and Endangered Species Status for the Missouri Distinct Population Segment of eastern hellbender, 84 Fed. Reg. 13223 (Apr. 4, 2019).

<sup>&</sup>lt;sup>56</sup> 12-month finding, 84 Fed. Reg. at 13226, 13230.

In addition to its negative 12-month finding, the Service conducted a distinct population segment ("DPS") analysis for the Missouri River lineage.<sup>57</sup> The Service concluded that the lineage met the "discrete" and "significant" prongs of the DPS analysis, and proposed to list the Missouri DPS of eastern hellbender as endangered.

### VIOLATIONS OF THE ENDANGERED SPECIES ACT

# The Service's Not Warranted Finding Is Arbitrarily Based on Admittedly Unproven and Ineffective Conservation Actions

The best available scientific and commercial data available shows that the numerous stressors driving hellbender declines "are pervasive across the eastern hellbender's range." Moreover, all hellbender species experts convened for the SSA "predicted that [the] composite influences negatively affecting the eastern hellbender would increase over the next 25 years." The predicted increase in stressors is particularly pronounced within states containing portions of the Ohio River-Susquehanna Rivers and Tennessee River lineages, which contain nearly 90% of the species' remaining populations. For example, stressors are predicted to increase 1300% in Tennessee. The predicted increase in stressors is also expected to result in the complete extirpation of healthy hellbender populations within the Missouri River and Kanawha River lineages.

In addition to these negative stressors, the SSA identifies "beneficial efforts," which "consist[] primarily of population augmentation," as having an impact on the species' future trajectory. These augmentation efforts serve as a primary basis for the "reasonable best scenario" and "most likely" future scenarios considered for each of the four hellbender lineages, which in turn provide the foundation for the Service's not warranted finding. This reliance was arbitrary and unlawful in several respects.

First, although augmentation efforts are laudable, by the Service's own admission the current and potential future efficacy of augmentation is completely unproven. Indeed, "augmentation is still in its infancy and little data exist as to whether successful sustained

<sup>&</sup>lt;sup>57</sup> 12-month finding, 84 Fed. Reg. at 13231.

<sup>&</sup>lt;sup>58</sup> 84 Fed. Reg. at 13229.

<sup>&</sup>lt;sup>59</sup> SSA, at 57.

<sup>&</sup>lt;sup>60</sup> SSA, at 57.

<sup>&</sup>lt;sup>61</sup> SSA, at 59.

<sup>&</sup>lt;sup>62</sup> SSA, at 34 ("[B]eneficial efforts were also ranked relatively high and consisted primarily of population augmentation.").

<sup>&</sup>lt;sup>63</sup> FWS, Eastern Hellbender Regional Director Briefing (May 14, 2018), slide 9; SSA, at 5 (noting that predicted increase in Missouri River lineage is "largely contingent upon augmentation efforts being successful."); SSA, at 12 (noting that extirpation of functionally extirpated populations "is essentially inevitable . . . without substantial intervention and augmentation."); *id.* at 64 ("Actions needed for declining populations to become healthy include population augmentations and land protection along inhabited streams.")

reproduction and recruitment can be achieved and whether augmentation is logistically possible at a broad scale."<sup>64</sup>

Moreover, as the Service acknowledges, even if augmentation eventually proves successful, "[b]ecause hellbenders are impacted by all activities occurring upstream of where they live, watershed conservation [is] necessary to ameliorate threats." Accordingly, while augmentation may increase the number of animals in a particular stream, "stressors, *e.g.*, sedimentation, will determine whether successful reproduction of released animals, and recruitment of their offspring, will result in long-term success." In other words, "[a]ugmentation efforts will only be effective in [the] long-term if [these] threats are reduced." The record, however, contains no scientific or commercial data demonstrating that any of the hellbender's myriad stressors will be reduced in the future.

Finally, the Service's reliance on augmentation as a basis for refusing to list the eastern hellbender subspecies as a whole is directly undermined by its separate finding in the same document proposing to list the Missouri DPS. There, the Service concludes that "[a]lthough conservation efforts, such as population augmentation and artificial nest boxes, are being implemented in Missouri, we have no evidence that they will improve population viability in the long term." As discussed, there is no evidence that such efforts will improve the hellbender's viability in *any* portion of its range.

The Service's reliance on unproven augmentation efforts that, even if successful, will in any event do nothing to address the many stressors driving hellbender declines thus renders its 12-month finding arbitrary, because the agency's explanation for the decision runs counter to the evidence and best scientific data available before the agency and is internally inconsistent.

The arbitrary nature of the finding is compounded and further highlighted by the Service's failure to apply the PECE policy, which is directly applicable to conservation efforts that have not been implemented or shown effective—such as the hellbender augmentation efforts.<sup>69</sup> The PECE prohibits such reliance unless the measures are "sufficiently certain to be effective."<sup>70</sup> Despite this direct applicability, the 12-month finding contains no analysis or discussion of the PECE policy. Had the Service correctly implemented this policy, its own

<sup>&</sup>lt;sup>64</sup> SSA, at 75; 12-month Finding, 84 Fed. Reg. at 13228.

<sup>&</sup>lt;sup>65</sup> Eastern Hellbender HQ Briefing (May 22, 2018), slide 9 notes.

<sup>&</sup>lt;sup>66</sup> Eastern Hellbender Regional Director Briefing, slide 8.

<sup>&</sup>lt;sup>67</sup> Eastern Hellbender HQ Briefing, slide 9 notes.

<sup>&</sup>lt;sup>68</sup> 12-month finding, 84 Fed. Reg. at 13234.

<sup>&</sup>lt;sup>69</sup> The Service's failure to address the PECE policy is particularly egregious given that the policy's intent is to provide the Service with flexibility to consider unproven conservation efforts in a manner that is not expressly allowed under the ESA's listing factors.

<sup>&</sup>lt;sup>70</sup> PECE, 68 Fed. Reg. at 15115; see also Desert Survivors v. United States, 321 F. Supp. 3d 1011, 1058 (N.D. Cal. 2018) ("The Court concludes that while PECE does not allow the Service to rely on speculative future efforts, it does not preclude the Service from considering future efforts that are sufficiently certain to be implemented and effective.") (emphasis in original).

repeated statements that augmentation is unproven and would not address stressors in any event show that the reliance on augmentation efforts was arbitrary.

### The Service Failed to Consider the Adequacy of Existing Regulatory Mechanisms

Section 4(a)(1)(D) of the ESA requires the agency to consider the adequacy of existing regulatory mechanisms when making listing decisions. The 12-month finding and SSA both fail to specifically address this factor. This omission is particularly notable in light of the many threats faced by the hellbender, the number of states it occurs in, and the mix of federal, state, and private lands upon which remaining members of the species depend on. A lawful analysis of the adequacy of existing regulatory mechanisms would by necessity consider laws, regulations, ordinances, and policies to address known threats across the various land ownerships. Yet the Service has failed to provide any consideration of specific state regulatory efforts, or those of federal land managers, such as the U.S. Forest Service, which manages much of the species' habitat in the four lineages. Because the 12-month finding is simply bereft of specific analysis of this factor, and does not attempt to explain how it is being addressed, the Service's decision is arbitrary.

## The Service Arbitrarily Concluded that the Eastern Hellbender is not Threatened or Endangered Throughout a Significant Portion of its Range

The addition of the "significant portion of its range" ("SPR") language to the ESA "represented a significant shift in the definition in existing law which consider[ed] a species to be endangered only when it is threatened with worldwide extinction."<sup>72</sup> The Service, however, crafted SPR Policy that "give[s] as little substantive effect as possible to the SPR language of the ESA in order to avoid providing range-wide protection to a species based on threats in a portion of the species' range."<sup>73</sup> By "pursuing this goal, the Service chose a definition of significance that renders the SPR phrase superfluous by limiting it to situations in which it is unnecessary."<sup>74</sup> The SPR policy has thus been struck down as unlawful and vacated.<sup>75</sup>

In the not warranted finding for the hellbender, the Service claims that it did not implement the vacated SPR policy or otherwise equate threatened or endangered in a significant portion of range with threatened or endangered in all of its range, but instead "identif[ied] portions that may be significant by looking for portions of the species' range that could be significant under any reasonable definition of 'significant.'"<sup>76</sup> The Service states that it does this by "look[ing] for any portions that may be biologically important in terms of the resiliency, redundancy, or representation of the species."<sup>77</sup>

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<sup>&</sup>lt;sup>71</sup> 16 U.S.C. § 1533(a)(1)(D).

<sup>&</sup>lt;sup>72</sup> Defenders of Wildlife, 258 F.3d 1136, 1141 (9th Cir. 2001).

<sup>73</sup> Ctr. for Biological Diversity v. Jewell, 248 F. Supp. 3d 946, 958 (D. Ariz. 2017).

 $<sup>^{74}</sup>$  Id

<sup>&</sup>lt;sup>75</sup> Ctr. for Biological Diversity v. Jewell, 248 F.3d at 959; Desert Survivors, 336 F. Supp. 3d at 1136.

<sup>&</sup>lt;sup>76</sup> 84 Fed. Reg. at 13230.

<sup>&</sup>lt;sup>77</sup> *Id*.

Despite this statement, however, the Service did in fact conflate the two standards and require the species to be endangered across its range. This conflation is illustrated by the Service's consideration of the Missouri River and Kanawha River lineages, which the Service acknowledges will likely be extirpated within the 25-year time period. Despite its own scientific findings in the status assessment that "conserving the full breadth of representation for the eastern hellbender should involve maintaining populations across and within the four distinct lineages," the Service concluded that the loss of two of the four remaining lineages are acceptable because those losses "would still leave sufficient resiliency, redundancy, and representation in the remainder of the subspecies' range such that it would not notably reduce the viability of the species." This analysis is functionally no different from an analysis of the species' status across its entire range because it effectively requires that a portion of the species range be "so vital that its loss would render the entire species endangered or threatened." Accordingly, the not warranted finding is arbitrary. 80

The Service's significant portion of range finding in relation to the eastern hellbender subspecies as a whole is also directly contradicted by its finding for the proposed listing of the Missouri DPS. There, the Service found the DPS to be "significant" because "[e]ach of the evolutionary lineages represents a substantial part off the subspecies' genetic diversity, as well as diverse ecological and physical conditions, which may provide important sources of adaptive diversity for the subspecies." 81

While designating and protecting DPS is an essential facet of ESA protections, the Service in this case is unlawfully abusing its DPS Policy as a pretense for refusing protections to the entire species as demanded by the ESA. The Service's DPS Policy and vacated SPR Policy both "require significance findings, and although the definitions of significance differ in the two policies, there is overlap." As recently summarized by one court, "by further limiting the already exceedingly rare if not entirely illusory potential circumstances in which application of the final SPR Policy could result in the listing of a species based on the species' status in a significant portion of its range," the Service's implementation of the DPS Policy supports the conclusion that the SPR Policy "interprets the statutory phrase 'significant portion of its range' so narrowly as to render the phrase entirely superfluous in all but the most unusual circumstances." 83

<sup>&</sup>lt;sup>78</sup> SSA, at 24; 84 Fed. Reg. at 13231.

<sup>&</sup>lt;sup>79</sup> See Desert Survivors, 321 F. Supp. 3d at 1073.

<sup>&</sup>lt;sup>80</sup> *Id.* at 1072–74.

<sup>&</sup>lt;sup>81</sup> 84 Fed. Reg. at 13233.

<sup>&</sup>lt;sup>82</sup> Ctr. for Biological Diversity v. Jewell, No. CV-14-2506, 2017 U.S. Dist. LEXIS 231372, \*7 (D. Ariz. Oct. 25, 2017).

<sup>83</sup> *Id.*, at \*7-8 (internal citation omitted).

# The Service Arbitrarily Limited Analysis of the Eastern Hellbenders Status in the Foreseeable Future to 25 Years

The ESA requires the Service to list a species as "threatened" if it "is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." The not warranted finding specified 25 years as the foreseeable future for the hellbender, stating predictions of the hellbender's "response to threats, based on elicitation of species' experts, are reasonably reliable out to 25 years." \*\*S

Under a 2009 policy, the Service has "broad discretion with respect to what constitutes the foreseeable future," but only "as long as the rationale is articulated." In the not warranted finding, however, the Service provides little rationale for its selection of a 25-year time period beyond what is quoted in the preceding paragraph. This conclusory statement falls short of the APA's standard of review, as well as the Service's 2009 policy, which directs the Service to provide "more than just a conclusion as to what is foreseeable given the data available—it should also explain how the Secretary reached that conclusion."

The Service also failed to specifically apply the 25-year threshold to all of the stressors facing the species, failing to abide by the 2009 policy direction to make predictions "according to the threat at issue." The not warranted finding and SSA both omit such discussion, despite the fact that the hellbender faces numerous threats. Moreover, projections of the impacts of some stressors (*e.g.*, climate change) extend well past 25 years. This truncated foreseeable future analysis effectively places blinders on the Service from analyzing available information for these or other threats to the hellbender.

Hellbender ecology further demonstrates the arbitrary nature of the 25-year foreseeable future timeframe in this case. Hellbenders live 30 years or more. The Service's selection of 25 years thus encapsulates less than a single generation of hellbenders. Because adults often survive degraded conditions better than young, looking at only 25 years has the potential to miss hellbender declines and extirpations related to poor or no reproduction and overestimate their future viability. <sup>89</sup> Indeed, Service policy expressly recognizes the need to consider multiple generations to assess some threats, stating: "[i]n some cases, foreseeable threats will manifest themselves immediately; in others, it may be multiple generations before the foreseeable manifestation of the threats occurs."

<sup>&</sup>lt;sup>84</sup> *Id.* § 1532(20).

<sup>85 84</sup> Fed. Reg. 13230.

<sup>&</sup>lt;sup>86</sup> M-37021, Memorandum of "The Meaning of 'Foreseeable Future' in Section 3(2) of the Endangered Species Act, Solicitor, United States Department of the Interior, Jan. 16, 2009.

<sup>&</sup>lt;sup>87</sup> M-37021, at 14.

<sup>&</sup>lt;sup>88</sup> M-37021 at 9.

<sup>&</sup>lt;sup>89</sup> SSA, at 76.

<sup>&</sup>lt;sup>90</sup> M-37021, at 10.

Because the Service failed to rationally explain its reliance on just 25 years to assess foreseeable future and made a decision directly counter to its own policy, its decision was arbitrary and capricious.

# The Service Failed to Determine if the Eastern Hellbender is At Risk of Becoming an Endangered Species in the Foreseeable Future

The ESA requires the Service to list a species as threatened, which is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Contrary to this mandate, the Service's not warranted finding utterly fails to explain what factors would qualify the hellbender as endangered in the foreseeable future (*e.g.*, 25 years). Instead, the Service unlawfully assesses the likelihood of *extinction* in the foreseeable future, rather than merely endangerment. 92

The Service thus concludes the hellbender won't be extirpated in the foreseeable future but says nothing about whether it will be endangered, as required by the ESA's plain language. Given that the hellbender is predicted to decline over the next 25 years, and the lack of any indication that threats will abate in that time, the best available science makes clear the hellbender will in fact be endangered in 25 years, if it is not already, and thus the agency's decision to deny threatened status is arbitrary.

#### **CONCLUSION**

For the foregoing reasons, the Service's determination that listing the eastern hellbender is not warranted is arbitrary, capricious, and violates the Endangered Species Act. If the Service does not cure these violations within 60 days, the organizations to the Notice intend to pursue litigation in federal court.

Sincerely,

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<sup>&</sup>lt;sup>91</sup> 16 U.S.C § 1532(20).

<sup>&</sup>lt;sup>92</sup> 84 Fed. Reg. 13230 ("While the subspecies' redundancy is lower than in the past, the geographically wide distribution of populations, as well as the low to moderate risk of a catastrophic event, guards against catastrophic losses range wide. We find that the predicted persistence of healthy populations across multiple [lineages] provides redundancy, resiliency, and representation levels that are likely sufficient to sustain the subspecies now and into the future, and we conclude that the eastern hellbender has a low risk of extirpation").