Permit for Discharges from Construction Activities,'' Document Number N2022001 at *https://cdxapps.epa.gov/cdx-enepa-II/public/action/nepa/details?nepaId=355222.* The EPA has reviewed the proposed modification and has found that it does not affect the EPA's prior categorical exclusion determination for the permit, including that it does not involve any extraordinary circumstances listed in 40 CFR 6.204(b)(1) through (10). The EPA has documented these findings as part of a revised categorical exclusion memorandum that is available to the public at *https://cdxnodengn.epa.gov/cdx-enepa-public/action/nepa/search.* If new information or changes to the proposed permit involve or relate to at least one of the extraordinary circumstances or otherwise indicate that the permit may not meet the criteria for categorical exclusion, the EPA will prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS).

Authority: Clean Water Act, 33 U.S.C. 1251 *et seq.*

David Cash,

Regional Administrator, EPA Region 1.

Javier Laureano Perez,

Director, Water Division, EPA Region 2.

Carmen Guerrero Perez,

Director, Caribbean Environmental Protection Division, EPA Region 2.

Michelle Price-Fay,

Director, Water Division, EPA Region 3.

Kathlene Butler,

Director, Water Division, EPA Region 4.

Tera Fong,

Director, Water Division, EPA Region 5.

Troy Hill,

Director, Water Division, EPA Region 6.

Jeffery Robichaud,

Director, Water Division, EPA Region 7.

Stephanie DeJong,

Manager, Clean Water Branch, EPA Region 8.

Tomas Torres,

Director, Water Division, EPA Region 9.

Mathew Martinson

Director, Water Division, EPA Region 10.

[FR Doc. 2024–28867 Filed 12–12–24; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R3–ES–2024–0152; FXES1111090FEDR–256–FF09E21000]

RIN 1018–BH79

Endangered and Threatened Wildlife and Plants; Endangered Species Status for Eastern Hellbender

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a salamander subspecies from Alabama, Georgia, Illinois, Indiana, Kentucky, Maryland, Mississippi, Missouri, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia, as an endangered species under the Endangered Species Act of 1973, as amended (Act). This determination also serves as our 12-month finding on a petition to list the eastern hellbender. After a review of the best available scientific and commercial information, we find that listing the subspecies is warranted. If we finalize this rule as proposed, it would add this subspecies to the List of Endangered and Threatened Wildlife and extend the Act's protections to the subspecies. We have determined that designation of critical habitat for the eastern hellbender is not prudent.

DATES: We will accept comments received or postmarked on or before February 11, 2025. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. eastern time on the closing date. We must receive requests for a public hearing, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by January 27, 2025.

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *https://www.regulations.gov.* In the Search box, enter FWS–R3–ES–2024–0152, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment.''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R3–ES–2024–0152, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on *https://www.regulations.gov.* This generally means that we will post any personal information you provide us (see Information Requested, below, for more information).

Availability of supporting materials: Supporting materials, such as the species status assessment report, are available on the Service's website at *https://fws.gov/species/eastern-hellbender-cryptobranchus-alleganiensis-alleganiensis,* at *https://www.regulations.gov* at Docket No. FWS–R3–ES–2024–0152, or both.

FOR FURTHER INFORMATION CONTACT: Erin Knoll, Field Supervisor, U.S. Fish and Wildlife Service, Ohio Ecological Services Field Office, 4625 Morse Road, Suite 104, Columbus, OH 43230; telephone 614–528–9704. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States. Please see Docket No. FWS–R3–ES–2024–0152 on *https://www.regulations.gov* for a document that summarizes this proposed rule.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. The Act (16 U.S.C. 1531 *et seq.*) defines a ''species'' as including any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature. Under the Act, a species warrants listing if it meets the definition of an endangered species (in danger of extinction throughout all or a significant portion of its range) or a threatened species (likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range). If we determine that a species warrants listing, we must list the species promptly and designate the species' critical habitat to the maximum extent prudent and determinable. We have determined that the eastern hellbender meets the Act's definition of an

endangered species; therefore, we are proposing to list it as such. Listing a species as an endangered or threatened species can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq.*).

What this document does. We propose to list the eastern hellbender as an endangered species under the Act. This document also includes our determination that the designation of critical habitat is not prudent for the eastern hellbender because this subspecies faces a threat of unauthorized collection and trade, and a critical habitat designation can reasonably be expected to increase the degree of these threats to the subspecies.

The basis for our action. Under the Act, we may determine that a species is an endangered or a threatened species because of any of five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We have determined that the eastern hellbender is endangered due to the following threats: sedimentation; water quality degradation; habitat destruction and modification; disease; and direct mortality or removal of hellbenders from a population by collection, persecution, recreation, or gravel mining.

Section 4(a)(3) of the Act requires that the Secretary of the Interior (Secretary), to the maximum extent prudent and determinable, concurrently with listing designate critical habitat for the species. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat. We have determined that designation of critical habitat for the eastern hellbender is not prudent.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other governmental agencies, Native American Tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) The eastern hellbender's biology, range, and population trends, including:

(a) Biological or ecological requirements of the subspecies, including habitat requirements for feeding, breeding, and sheltering;

(b) Genetics and taxonomy;

(c) Historical and current range, including distribution patterns and the locations of any additional populations of this subspecies;

(d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for the subspecies, its habitat, or both.

(2) Threats and conservation actions affecting the subspecies, including:

(a) Factors that may be affecting the continued existence of the subspecies, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors;

(b) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to this subspecies; and

(c) Existing regulations or conservation actions that may be addressing threats to this subspecies.

(3) Additional information concerning the historical and current status of this subspecies.

(4) Information regarding application of our distinct population segment (DPS) policy (61 FR 4722), including:

(a) Whether any populations or analysis units of the eastern hellbender meet the criteria for a DPS; and

(b) Whether any potential DPS of the eastern hellbender may have a different listing status.

(5) Information regarding our determination that designating critical habitat for the eastern hellbender is not prudent.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide substantial information necessary to support a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made solely on the basis of the best scientific and commercial data available.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES.** We request that you send comments only by the methods described in **ADDRESSES.**

If you submit information via *https://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *https://www.regulations.gov.*

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *https://www.regulations.gov.*

Our final determination may differ from this proposal because we will consider all comments we receive during the comment period as well as any information that may become available after this proposal. Based on the new information we receive (and, if relevant, any comments on that new information), we may conclude that the eastern hellbender is threatened instead of endangered, or we may conclude that the eastern hellbender does not warrant listing as either an endangered species or a threatened species. In our final rule, we will clearly explain our rationale and the basis for our final decision, including why we made changes, if any, that differ from this proposal.

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES.** Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT.** We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain

reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. We may hold the public hearing in person or virtually via webinar. We will announce any public hearing on our website, in addition to the **Federal Register**. The use of virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Previous Federal Actions

On April 4, 2019, we published a document in the **Federal Register** (84 FR 13223) that was both: (1) a 12-month finding that listing the eastern hellbender subspecies as a whole was not warranted, and (2) a proposed rule to list the Missouri DPS of the eastern hellbender as an endangered species. On March 9, 2021, we published a final rule listing the Missouri DPS of the eastern hellbender as endangered (86 FR 13465). Please refer to our April 4, 2019, **Federal Register** publication (84 FR 13223) for a detailed description of Federal actions concerning the eastern hellbender prior to April 2019.

On July 1, 2021, the Center for Biological Diversity, Waterkeeper Alliance, Inc., Waterkeepers Chesapeake, Inc., Lower Susquehanna Riverkeeper Association, and Middle Susquehanna Riverkeeper Association filed a complaint challenging the Service's not-warranted finding for listing the eastern hellbender subspecies as a whole. On September 5, 2023, a court order vacated and remanded the Service's April 4, 2019, 12-month finding (see 84 FR 13223). The Service and plaintiffs reached a stipulated settlement agreement whereby the Service agreed to submit to the **Federal Register** a new 12-month finding no later than December 5, 2024. This document addresses the court's order in compliance with the December 5, 2024, stipulated settlement agreement.

Peer Review

A species status assessment (SSA) team prepared an SSA report for the eastern hellbender (version 2.1; Service 2024, entire). The SSA team was composed of Service biologists, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the subspecies, including the impacts of past, present, and future factors (both negative and beneficial) affecting the subspecies.

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review in listing and recovery actions under the Act, we solicited independent scientific review of the information contained in the eastern hellbender SSA report. We sent the SSA report to five independent peer reviewers and received one response. Results of this structured peer review process can be found at *https://www.regulations.gov* and *https://fws.gov/species/eastern-hellbender-cryptobranchus-alleganiensis-alleganiensis.* In preparing this proposed rule, we incorporated the results of this peer review, as appropriate, into the SSA report, which is the foundation for this proposed rule.

Summary of Peer Reviewer Comments

As discussed above in Peer Review, we received comments from one peer reviewer on the draft SSA report. We reviewed all comments we received from the peer reviewer for substantive issues and new information regarding the contents of the SSA report. The peer reviewer generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions. The peer reviewer provided additional information and updated literature on threats, including disease, predation, persecution, and sedimentation. The reviewer suggested edits to clarify tables and figures in the SSA report. The peer reviewer did not recommend any substantive changes to our analysis and conclusions within the SSA report. We revised the SSA report to address the reviewer's comments, including the additional recommended threat information and clarification of tables and figures.

I. Proposed Listing Determination

Background

A thorough review of the taxonomy, life history, and ecology of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*) is presented in the SSA report (version 2.0; Service 2024, pp. 16–19). The full SSA report can be found on the Service's website at *https://fws.gov/species/eastern-hellbender-cryptobranchus-alleganiensis-alleganiensis* and at *https://www.regulations.gov* at Docket No. FWS–R3–ES–2024–0152.

The eastern hellbender, one of two recognized subspecies of hellbender, is a large, entirely aquatic salamander found in perennial streams across 15 States from northeastern Mississippi, northern Alabama, northern Georgia, Tennessee, western North Carolina, western Virginia, West Virginia, Kentucky, southern Illinois, southern Indiana, Ohio, Pennsylvania, western Maryland, and southern New York, with disjunct populations occurring in east-central Missouri. The range of the eastern hellbender does not overlap with the other subspecies, Ozark hellbender (*C. alleganiensis bishopi*).

Streams occupied by the eastern hellbender are usually fast-flowing, cool, and highly oxygenated (Green 1934, p. 28; Bishop 1941, pp. 50–51; Green and Pauley 1987, p. 46). Eastern hellbenders respire through their skin, aided by prominent, highly vascularized skin folds (Guimond 1970, pp. 287–288; Nickerson and Mays 1973, pp. 26–27), and are not well adapted to low-oxygen conditions (Ultsch and Duke 1990, p. 255). In addition, low water conductivity is an important habitat requirement (Bodinof Jachowski and Hopkins 2018, pp. 220–221).

Boulders provide cover and breeding sites and are the most important indicator of adult eastern hellbender habitat (Bothner and Gottlieb 1991, p. 45; Humphries 2005, p. 10; Lipps 2009, p. 9). Hellbender nests are typically excavations beneath partially embedded, large (greater than 30 centimeters (cm)), flat rocks with a single opening facing downstream or perpendicular to streamflow (Smith 1907, p. 7). Females deposit eggs under a nest rock, and males externally fertilize the egg clutch (Nickerson and Mays 1973, p. 45), after which a single male defends the nest from other hellbenders (Smith 1907, pp. 24–25). Larvae are typically found within the interstices of cobble and gravel, and occasionally under large rocks (Nickerson et al. 2003, p. 624; Keitzer 2007, pp. 16–17; Foster et al. 2008, p. 184).

Larvae lose their gills about 1.5 to 2 years after hatching (Bishop 1941, p. 49; Nickerson and Mays 1973, p. 53); juveniles sexually mature at an age of approximately 5 or 6 years (Bishop 1941, p. 50). Maximum age is not known with certainty, but estimates suggest that eastern hellbenders can live at least 25 to 30 years in the wild (Taber et al. 1975, p. 635; Peterson et al. 1988, p. 298).

Adults are primarily nocturnal and eat crayfish and, to a lesser degree, small fish (Smith 1907, p. 12; Swanson 1948, p. 363; Peterson et al. 1989, p. 440). Other occasional food items include insects and larval and adult frogs (Green 1935, p. 36; Pfingsten 1990, p. 49; Foster 2006, p. 74). The diet of larval eastern hellbenders consists mainly of aquatic insects (Pitt and Nickerson 2005, p. 69; Hecht et al. 2017, p. 159; Unger et al. 2020, p. 3). Eastern hellbenders occupy relatively small home ranges of approximately 30 square meters (m^2) (322 square feet (ft^2)) to

approximately 2,212 m^2 (23,810 ft^2) (Hillis and Bellis 1971, p. 124; Coatney 1982, p. 23; Peterson and Wilkinson 1996, p. 126; Humphries and Pauley 2005, p. 137; Burgmeier et al. 2011a, p. 139) but are also capable of long distance movements, which have been documented up to 12.9 kilometers (km) (8 miles (mi)) (Petokas 2011, pers. comm.; Foster 2012, pers. comm.).

Regulatory and Analytical Framework

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for endangered and threatened species.

The Act defines an ''endangered species'' as a species that is in danger of extinction throughout all or a significant portion of its range and a ''threatened species'' as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an endangered species or a threatened species because of any of the following factors:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term ''threat'' to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term ''threat'' includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term ''threat'' may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an ''endangered species'' or a ''threatened species.'' In determining whether a species meets either definition, we must evaluate all identified threats by considering the species' expected response and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an ''endangered species'' or a ''threatened species'' only after conducting this cumulative analysis and describing the expected effect on the species.

The Act does not define the term ''foreseeable future,'' which appears in the statutory definition of ''threatened species.'' Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis, which is further described in the 2009 Memorandum Opinion on the foreseeable future from the Department of the Interior, Office of the Solicitor (M–37021, January 16, 2009; ''M-Opinion,'' available online at *https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-37021.pdf*). The foreseeable future extends as far into the future as the U.S. Fish and Wildlife Service and National Marine Fisheries Service (hereafter, the Services) can make reasonably reliable predictions about the threats to the species and the species' responses to those threats. We need not identify the foreseeable future in terms of a specific period of time. We will describe the foreseeable future on a case-by-case basis, using the best available data and taking into account considerations such as the species' life-history characteristics, threat projection timeframes, and environmental variability. In other words, the foreseeable future is the period of time over which we can make reasonably reliable predictions. ''Reliable'' does not mean ''certain''; it means sufficient to provide a reasonable degree of confidence in the prediction, in light of the conservation purposes of the Act.

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the eastern hellbender, including an assessment of the potential threats to the subspecies. The SSA report does not represent our decision on whether the subspecies should be proposed for listing as an endangered or threatened species under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies.

To assess the eastern hellbender's viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency is the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years); redundancy is the ability of the species to withstand catastrophic events (for example, droughts, large pollution events); and representation is the ability of the species to adapt to both near-term and long-term changes in its physical and biological environment (for example, climate conditions, pathogens). In general, species viability will increase with increases in resiliency, redundancy, and representation (Smith et al. 2018, p. 306). Using these principles, we identified the eastern hellbender's ecological requirements for survival and reproduction at the individual, population, and subspecies levels, and described the beneficial and risk factors influencing the subspecies' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the eastern hellbender's life-history needs. The next stage involved an assessment of the historical and current condition of the subspecies' demographics and habitat characteristics, including an explanation of how the subspecies arrived at its current condition. The final stage of the SSA involved making predictions about the subspecies' responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of the subspecies to sustain populations in the wild over time, which we then used to inform our regulatory decision.

The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS–R3–ES–2024–0152 on *https://www.regulations.gov* and at *https://fws.gov/species/eastern-hellbender-cryptobranchus-alleganiensis-alleganiensis.*

Summary of Biological Status and Threats

In this discussion, we review the biological condition of the subspecies and its resources, and the threats that influence the subspecies' current and future condition, in order to assess the subspecies' overall viability and the risks to that viability.

Subspecies Needs

Individual Needs

The eastern hellbender's individual-level needs are summarized in table 1, below.

TABLE 1—EASTERN HELLBENDER'S NEEDS AT THE INDIVIDUAL LEVEL BY LIFE STAGES

Life stage	Requirements	Description
All stages	Perennial streams	Inhabited streams must have continuous flow of water throughout the year.
All stages	Good water conditions	Stream current should be swift-flowing, have relatively cool temperatures, and be highly oxygenated.
Eggs, juveniles, adults	Presence of suitable habitat for breeding and shelter.	Presence of large (≥30 cm) flat rocks; rocks should be partially embedded to allow a single opening for males to guard eggs underneath.
Larvae, juveniles	Presence of suitable habitat for shelter and foraging.	Substrate should consist of unembedded cobble and coarse gravel material where interstitial spaces are present for individuals, especially larvae, to seek shelter and feed.
Larvae, juveniles, adults	Abundant prey availability	Adults and juveniles feed primarily on crayfish but will occasionally consume small fish, insects, and frogs. Larvae eat aquatic insects.

Population Needs

For eastern hellbender populations to be healthy (stable and recruiting), they must have: (1) a healthy demography, (2) adequate quantity and quality of habitat to support all life stages, and (3) connectivity to allow movement among habitat patches. These are described in the SSA report (Service 2024, pp. 19–20) and summarized below.

Demographic Health—To withstand natural environmental fluctuations, eastern hellbender populations must have a population growth rate of at least 1 to remain stable over time. Based on expert input, a population growth rate of 1.05 (1.0–1.2) is needed for a stable recruiting population. In the absence of population growth rates, survivorship and recruitment rates also can be used to represent healthy demography. Although these rates likely vary among populations, the following rates have been used to represent annual survivorship in modelling a stable hellbender population: 70 to 85 percent for adults, 67 to 75 percent for subadults, and 10 percent for early life stages (eggs and larvae) (Briggler et al. 2007, p. 82; Unger et al. 2013, p. 425).

The population size must also be large enough to be resilient to environmental fluctuations. Similar to population growth rate, the minimum population size to be healthy likely varies among populations. The expert-elicited minimum adult population size ranges from 45 to 1,050, with a median most likely value of 160.

Habitat Quality and Quantity—Healthy eastern hellbender populations require habitat of sufficient quality and quantity to support all life stages. The required habitat quality is described above in table 1 and in the SSA report (Service 2024, p. 20). The quantity of habitat likely varies among populations. The expert-elicited minimum number of suitable habitat patches ranges from 3 to 15, with a median most likely value of 4. Patch sizes reportedly vary from 1,150 to 21,400 m^2 (0.3–5.3 acres) (Peterson 1985, p. 46; Humphries and Pauley 2005, p. 136; Foster et al. 2009, p. 582; Burgmeier et al. 2011c, p. 196). The minimum patch size required to support a healthy population likely depends upon the number of suitable habitat patches.

Movement Among Habitat Patches—Eastern hellbender populations typically consist of individuals dispersed among multiple patches of suitable habitat within a stream or a portion of a stream. Movement among these habitat patches is needed to maintain genetic diversity and to allow recolonization of patches in the event of local extirpation. For movement to occur, the patches must be in sufficient proximity of each other to allow at least occasional interaction among individuals. Based on radio telemetry and mark-recapture studies to date, patches should generally be no more than 1 km (0.6 mi) apart for this movement to occur (Nickerson and Mays 1973, pp. 14–15; Blais 1996, p. 30; Burgmeier et al. 2011a, p. 138). In addition, movement between patches must not be restricted by barriers, such as dams or large stretches of unsuitable habitat.

Subspecies Needs

For the eastern hellbender to maintain viability, it requires a sufficient number and distribution of healthy populations to ensure the subspecies can withstand (1) annual demographic and environmental variation (resiliency), (2) catastrophes (redundancy), and (3) novel or extraordinary changes in its environment (representation). These are described in the SSA report (Service 2024, pp. 21–25) and summarized below.

Resiliency—The eastern hellbender's ability to withstand stochastic events requires maintaining healthy populations distributed across heterogeneous conditions. Thus, the greater the number of healthy populations, the greater degree of spatial heterogeneity occupied by eastern hellbender, and the more widely distributed populations are, the more likely it is that the eastern hellbender can withstand stochastic events.

As described below, gene flow among major river drainages (*e.g.,* Tennessee River, Ohio River, etc.) was limited historically (Sabatino and Routman 2009, p. 1241; Tonione et al. 2011, pp. 214–215; Hime et al. 2016, p. 12). Therefore, connectivity among major river drainages does not influence eastern hellbender resiliency.

Redundancy—The eastern hellbender's ability to withstand catastrophic events depends on the number and distribution of healthy populations. The more populations and the more widely distributed, the less likely all populations will be exposed to a catastrophic event.

In addition to guarding against a single or series of catastrophic events extirpating all populations of the eastern hellbender, redundancy is important to protect against losing irreplaceable sources of genetic and adaptive

diversity. Having multiple eastern hellbender populations within each evolutionary lineage (see *Representation,* below) will guard against losses of adaptive diversity due to catastrophic events. Thus, eastern hellbender redundancy is described as having multiple, healthy populations widely distributed across the breadth of genetic and adaptive diversity relative to the spatial occurrence of catastrophic events.

Representation—The ability of the eastern hellbender to adapt over time to environmental changes is a function of both its genetic and adaptive diversity. In terms of genetic diversity, the eastern hellbender consists of four evolutionary lineages that are distinct from each other (Hime et al. 2016, pp. 4–13). Thus, to facilitate our analyses, we used these four groupings as our adaptive capacity units (ACUs) to evaluate past, current, and future representation of the eastern hellbender. The four units are: (1) Missouri (MACU), (2) Ohio River-Susquehanna River drainages (OACU), (3) Tennessee River drainage (TACU), and (4) Kanawha River drainage (KACU) (see figure 1, below).

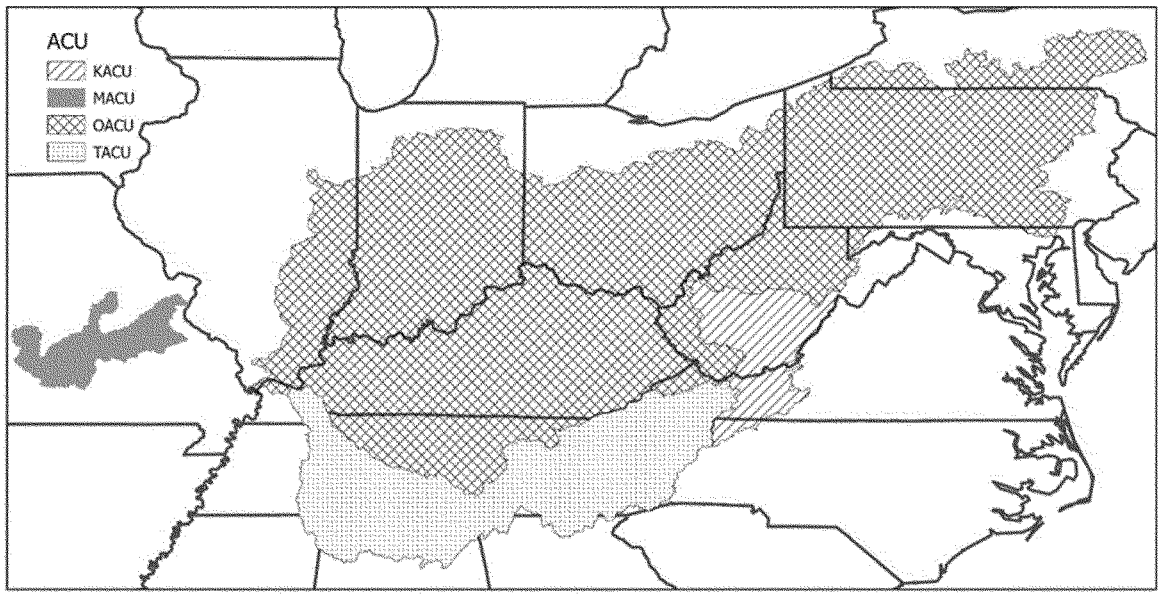

Figure 1. Eastern hellbender adaptive capacity units (ACUs). KACU=Kanawha River drainage; MACU=Missouri; OACU=Ohio River-Susquehanna River drainages; TACU=Tennessee River drainage.

The eastern hellbender exhibits low levels of gene flow among populations (Sabatino and Routman 2009, p. 1,241; Hime et al. 2016, p. 12), and while there is still some genetic exchange among the lineages, significant barriers to gene flow exist (Hime et al. 2016, pp. 7, 12). The eastern hellbender's specific habitat requirements (streams with clean, clear, cold, well-oxygenated water and large, flat rocks), especially at low elevations, may limit migration between rivers and result in natural fragmentation (Sabatino and Routman 2009, p. 1,241). This restricted gene flow may also be attributable to external fertilization, which reduces the colonization of new areas due to flooding since this would require at least a breeding pair, as opposed to a single inseminated female, to be moved to a new location (Sabatino and Routman 2009, p. 1,242).

In addition to genetic diversity, ecological diversity, such as stream temperature regime and stream order, may also represent underlying adaptive diversity. Eastern hellbenders occupy streams with summer water temperatures ranging from 20 degrees Celsius (°C) (68 degrees Fahrenheit (°F)) (Nickerson et al. 2003, p. 622) to 33 °C (91 °F) (Pfingsten 1988, p. 49). Variation in mean annual stream temperature or the annual fluctuation in stream temperature likely results in differences in movement patterns (*e.g.,* seasonal movements due to extreme temperatures), physiological tolerances, and naturally occurring microbes among hellbender populations.

Stream order is used to define stream size from 1 (smallest) to 12 (largest), based on a hierarchy of tributaries, and can be used to characterize a number of physical conditions, such as hydrological patterns. Variation in these characteristics influences the diversity and abundance of predators and prey (Vannote et al. 1980, pp. 132–135). Stream order is often also correlated with stream gradient, which influences stream velocity, discharge rates and patterns (*i.e.,* ''flashiness''), and sediment transport. Differences in these conditions may influence hellbender behavior during flood events, foraging behavior (*e.g.,* in high-velocity vs. low-velocity water, in turbid vs. clear water), when or how individuals move among sites, and habitat selection (*e.g.,* available cover likely differs in headwater streams compared to large rivers), among other aspects. Eastern hellbenders occupy streams of orders 2 to 8, and this variation may also represent a range in the eastern hellbender's adaptive diversity.

In summary, the eastern hellbender exhibits low levels of genetic variation within the four distinct lineages with higher genetic variation among the lineages (Hime et al. 2016, p. 12). Ecological differences in the streams occupied by the eastern hellbender may also represent sources of adaptive diversity. Thus, conserving the full breadth of representation for the eastern hellbender involves maintaining populations across and within the four distinct lineages (see figure 1, above).

Summary of Threats

In consultation with species experts, we identified the past and current factors that have led to the eastern hellbender's current condition and that may influence population dynamics into the future. A brief summary of the most influential factors is presented below; for a full description of these

threats, refer to chapter 5 of the SSA report (Service 2024, pp. 31–50).

Sedimentation

Across the range, sedimentation was identified as the factor most impacting the status of the eastern hellbender. Sedimentation is the addition of fine soil particles (*e.g.,* sands, silts, clays) to streams and emanates from multiple sources, including agriculture, silviculture, oil and gas development, residential development, off-road vehicles, impoundments, instream gravel mining, and road construction (Service 2024, p. 33). These sediments bury shelter and nest rocks (Blais 1996, p. 11; Lipps 2009, p. 10; Hopkins and DuRant 2011, p. 112), suffocate eggs (Nickerson and Mays 1973, pp. 55–56), alter habitat for crayfish (the primary food source of adult eastern hellbenders) (Santucci et al. 2005, pp. 986–987; Kaunert 2011, p. 23), and degrade habitat for larval and juvenile hellbenders, as well as habitat for macroinvertebrates, which are an important food source for larval hellbenders (Cobb and Flannagan 1990, pp. 35–37; Nickerson et al. 2003, p. 624; Brooks et al. 2023, p. 3). Because sedimentation affects all life stages of the eastern hellbender, impairs or prevents successful reproduction, and is pervasive throughout the subspecies' range, it has specifically been implicated as a cause of eastern hellbender declines and as a continuing threat throughout much of the subspecies' range.

Water Quality Degradation

Degraded water quality was estimated as having the second highest impact on the eastern hellbender's status in all adaptive capacity units (ACUs) because it can cause direct mortality of eastern hellbenders and, at sub-lethal levels, can alter physiological processes and increase vulnerability to other threats (Maitland 1995, p. 260). Sub-lethal levels of water quality degradation can include nutrient enrichment from poorly treated municipal wastewater, which causes lower oxygen levels in the stream. Major sources of aquatic pollutants include domestic wastes, agricultural runoff, coal mining activities, road construction, and unpermitted industrial discharges. While it is unlikely that a chemical spill could cause catastrophic loss of an entire ACU, such loss is possible if multiple spills occur in an ACU with low redundancy. One such spill occurred in a West Branch Susquehanna River tributary in 2006 from a railway container following a derailment, killing at least four eastern hellbenders (Hartle 2016, pp. 54–55).

Habitat Destruction and Modification

Destruction of habitat from impoundments, channelization, and instream gravel mining was also ranked relatively high as a factor impacting the eastern hellbender's status due to the extent of these stressors throughout the subspecies' range. Impoundments reduce upstream streamflow, increasing sedimentation and subsequently lowering dissolved oxygen. Dams have been constructed in every major stream system in the range of the eastern hellbender and have contributed to population declines and local extirpations, especially in large streams used for navigation (*e.g.,* Ohio, Cumberland, and Tennessee Rivers) (Gentry 1955, p. 169; Nickerson and Mays 1973, pp. 58, 63, 66; Mount 1975, p. 109; Pfingsten 1990, p. 49; Echternacht 2009, pers. comm.; Graham et al. 2011, p. 246; Williams 2012, pers. comm.), and are currently restricting movement among some populations and into some previously occupied habitats. Channelization (typically conducted for drainage improvements) and instream gravel mining remove the coarse substrates (*e.g.,* gravel, cobble, and boulder) and often the associated riparian vegetation, resulting in accelerated erosion, decreased habitat diversity, and channel instability (Hartfield 1993, p. 131; Hubbard et al. 1993, pp. 136–145).

Direct Mortality or Permanent Removal of Animals

Large numbers of eastern hellbenders have historically been removed from some streams for scientific and educational purposes, for the pet trade, and for eradication efforts (Swanson 1948, p. 362; Nickerson and Briggler 2007, p. 208; Foster 2018, pp. 32–34). These removals likely contributed to the population declines seen in some streams. The current rate of permanent removal of eastern hellbenders is likely significantly lower than it has been historically. However, collection and sale of eastern hellbenders continues to be a threat, with internet advertisements soliciting purchase of wholesale lots of eastern hellbenders (Briggler 2010, pers. comm.) despite State and Federal regulations that restrict sale and trade of hellbenders (see *Conservation Efforts and Regulatory Mechanisms,* below).

Killing of eastern hellbenders by some anglers and the removal of individuals for personal use and the pet trade also continues in some areas. Even though many eastern hellbenders targeted by scientists and nature enthusiasts are returned to the stream, the act of searching for eastern hellbenders can result in increased egg and larval mortality. Eastern hellbenders are typically captured by lifting large shelter rocks and catching individuals by hand. Many researchers have speculated that rock lifting to collect eastern hellbenders results in adverse impacts, especially when done during the breeding season (Williams et al. 1981, p. 26; Lindberg and Soule 1991, p. 8; Williams 2012, pers. comm.).

Removing adult eastern hellbenders from stream populations may be particularly detrimental, as stable populations of long-lived species typically have high adult survival rates, which compensates for correspondingly low rates of recruitment into the adult populations (Miller 1976, p. 2). In eastern hellbender populations with low densities and little evidence of recent recruitment into the adult population, the removal of any individuals from a population may be deleterious (Pfingsten 1988, p. 16). Because many eastern hellbender populations are already stressed by habitat degradation, compensation for high adult mortality through high recruitment of juveniles is even less likely. Although the magnitude of this threat is not known with certainty, its occurrence is commonly noted by field researchers, suggesting that it is a relatively common occurrence in some portions of the subspecies' range. Furthermore, as the number of populations decline and become concentrated on public lands, locations and animals might be easier to find, especially if artificial nest box use increases in the future.

Direct mortality of eastern hellbenders can also occur from instream gravel mining activities. Gravel mining physically disturbs habitat in dredged areas, and dredging equipment can crush and embed cover rocks (Lipps 2009, p. 8), potentially killing eastern hellbenders in the process. Gravel mining continues to be a threat to some populations of eastern hellbenders, including in the densest remaining known population of the Licking River system in Kentucky (Lipps 2009, p. 8).

Disease

Disease can act as a stressor on eastern hellbender populations and has the potential to cause catastrophic loss of hellbender populations. Emerging infectious diseases (EIDs), especially fungal EIDs in wildlife, are on the rise, and salamanders are especially susceptible given the high magnitude of legal and illegal trade in herpetofauna.

Batrachochytrium dendrobatidis (*Bd*) is a fungal pathogen that can cause

chytridiomycosis, a highly infectious amphibian disease associated with mass die-offs, population declines and extirpations, and potentially extinctions of a variety of amphibian species on multiple continents (Berger et al. 1998, pp. 9031–9036; Bosch et al. 2001, pp. 331–337; Lips et al. 2006, pp. 3165–3166). *Bd* infection of eastern hellbenders has been confirmed in every State where testing has occurred (*i.e.,* New York, Pennsylvania, West Virginia, Ohio, Kentucky, Indiana, North Carolina, Tennessee, Georgia, and Missouri) (Greathouse 2007, p. 42; Briggler et al. 2008, p. 444; Burgmeier et al. 2011b, p. 845; Gonynor et al. 2011, pp. 58–59; Regester et al. 2012, p. 20; Roblee 2012, pers. comm.; Souza et al. 2012, p. 562; Wolfe 2012, pers. comm.; Williams and Groves 2014, p. 457). The earliest known record of an infected eastern hellbender is from Missouri in 1975; *Bd* infection rates in eastern hellbenders collected in Missouri between 1896 and 1994 was 5.4 percent (Bodinof et al. 2011, p. 3). Even mild chronic *Bd* infections may negatively impact eastern hellbenders and may increase susceptibility of eastern hellbenders to other infection. While *Bd* currently does not appear to be causing large-scale mortality events in wild populations of eastern hellbenders, other stressors, such as environmental contaminants or rising water temperatures, can weaken animals' immune systems, leading to outbreaks of clinical disease and cause mortality events in the future (Briggler et al. 2007, p. 18; Regester et al. 2012, p. 19).

Batrachochytrium salamandrivorans (*Bsal*) is a fungal pathogen that invaded Europe from Asia around 2010, and it has caused mass die-offs of fire salamanders (*Salamandra salamandra*) in northern Europe (Martel et al. 2014, p. 631; Fisher 2017, pp. 300–301). Given extensive unregulated trade and the discovery of *Bsal* in Europe in 2010, the introduction of this novel pathogen could cause extirpations of naïve salamander populations in North America (Yap et al. 2017, entire) were *Bsal* to be introduced here. Regions with a high risk of introduction of *Bsal* include portions of the southeastern and northeastern United States, two regions that comprise a substantial portion of the eastern hellbender's range (Richgels et al. 2016, p. 5; Yap et al. 2017, pp. 857–858). The Appalachian Mountains, a region containing some of the best remaining eastern hellbender populations, was identified as a region most likely to have salamander declines from *Bsal* based on environmental suitability and species richness (Richgels et al. 2016, p. 4). Because *Bsal* can be transmitted via environmentally-resistant zoospores and encysted spores that can float at the water-air interface (Stegen et al. 2017, pp. 354–355) in addition to direct contact between animals, it is expected to spread readily in stream environments.

Given the high risk of *Bsal* invasion, on January 13, 2016, the Service published in the **Federal Register** (81 FR 1534) an interim rule to list 20 amphibian genera known to carry *Bsal* as injurious under the Lacey Act (16 U.S.C. 3371–3378; 18 U.S.C. 42) to prohibit, with limited exceptions, their importation into the United States and interstate transportation within the United States. Despite this protection, it is possible that an unknown carrier or illegal import could introduce this pathogen into eastern hellbender populations.

Habitat Disturbance

Anthropogenic disturbance in the form of rock-moving by people recreating on rivers is becoming an increasing stressor on eastern hellbenders and can cause mortality. Large shelter rocks are removed to reduce obstructions to recreational canoeing or tubing. Additionally, collection of boulders, rocks, and cobble for landscaping has been suspected in some areas in Missouri (Briggler et al. 2007, p. 62). Because large rocks serve as shelter and nesting habitat for adults, and smaller rocks and cobble provide larval and juvenile habitat, moving rocks of any size has the potential to lead to mortality of some life stage. Unger et al. (2017, entire) documented direct mortality to eastern hellbenders as a result of shelter rock disturbance.

Small Populations, Population Fragmentation, and Isolation

Many eastern hellbender populations are small and isolated from one another by impoundments and large reaches of unsuitable habitat. This isolation restricts movement among populations and precludes natural recolonization from source populations (Dodd 1997, p. 178; Benstead et al. 1999, pp. 662–664; Poff and Hart 2002, p. 660).

Increased Abundance of Predator Species

Some native predators of the eastern hellbender, such as raccoons, have increased in abundance due to anthropogenic influences, while others, such as river otters, have recently been reintroduced into streams where eastern hellbenders occur. Nonnative predators are also present within a large portion of the eastern hellbender's range and include predatory fish stocked for recreation, such as rainbow trout (*Oncorhynchus mykiss*) and brown trout (*Salmo trutta*) (Mayasich et al. 2003, p. 20). Nonnative trout species are thought to directly impact eastern hellbenders by predating on eggs, larvae, sub-adults, and adults, and by impacting hellbenders indirectly through competition for resources.

Climate Change

Our current analyses under the Act include consideration of ongoing and projected changes in climate. Climate change is expected to result in rising average temperatures throughout the range of the eastern hellbender, along with more frequent heat waves and increased periods of drought punctuated by intense rainstorms, likely resulting in elevated stream temperature regimes and lower summer base-flows (Karl et al. 2009, pp. 44, 107, 111–112, 117–118). Higher stream temperatures result in lower oxygen levels in the stream, and lower summer base-flows make hellbenders more susceptible to predation by terrestrial animals such as racoons. Migration of eastern hellbenders as an adaptation to climate change is unlikely, due to their limited mobility, small home range sizes, restriction to defined stream systems, and the extensive network of impoundments throughout their range.

Conservation Efforts and Regulatory Mechanisms

Eastern hellbender conservation efforts occur in every State in the subspecies' range, but these efforts vary widely. Some States, including Ohio, Indiana, Missouri, and New York, have developed and follow conservation plans specific to the eastern hellbender. Other States conduct conservation but do not follow a State-wide plan. Conservation efforts include habitat restoration, such as streambank stabilization, natural channel restoration, riparian buffer plantings, livestock exclusion, dam removal, and rock shelter placement, and population augmentation, including captive rearing and artificial nest boxes.

Captive rearing increases the survival rate of young eastern hellbenders by raising them in captivity to 2 to 4 years of age. Once reared, young are released into the wild to augment existing populations or reintroduced into areas where the subspecies has been extirpated. Artificial nest boxes have been successfully used for reproduction by eastern hellbenders in Ohio, West Virginia, Missouri, Virginia, and New York. However, we currently have no data on the long-term success of these

efforts and whether they contribute to the conservation of the subspecies. Therefore, we have not considered these activities in our viability assessment of the eastern hellbender.

The eastern hellbender is protected under State endangered species laws in many States within the range. Illinois, Indiana, Maryland, Missouri, Ohio, and Tennessee have listed the subspecies as endangered, while Alabama and Georgia have listed it as threatened. New York, North Carolina, Pennsylvania, and Virginia have identified the eastern hellbender as a species of special concern, and Mississippi and West Virginia consider the subspecies imperiled. Kentucky identified the eastern hellbender as a species of greatest conservation need. In some States (*e.g.,* Ohio, Indiana, Missouri, and New York), these laws prohibit killing, sale, and/or possession of any eastern hellbenders but do not always address habitat-related threats, such as sedimentation, which is the primary threat affecting the eastern hellbender.

In addition to State regulations, the eastern hellbender is also protected by the Lacey Act, which prohibits interstate transportation and sale of fish, wildlife, or plant species that were collected in violation of State law or regulation. Specifically, it is unlawful for any person to import, export, transport, sell, receive, acquire, or purchase any fish or wildlife or plant taken, possessed, transported, or sold in violation of any law, treaty, or regulation of the United States or in violation of any Indian Tribal law (16 U.S.C. 3372(a)). Because the sale of eastern hellbenders is illegal in all States within the subspecies' range, interstate or international sale of eastern hellbenders collected in those States is prohibited by the Lacey Act.

Several other regulatory mechanisms address threats to the eastern hellbender. The hellbender, including both the eastern and Ozark hellbender, was added to appendix III of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) on April 3, 2012 (see 76 FR 61978, October 6, 2011). Appendix III includes native species that are regulated to prevent or restrict exploitation, where help is needed to monitor and control the trade of the species. Inclusion in appendix III provides the following benefits:

(1) Ensures the assistance of the countries or regional economic integration organizations that have agreed to be bound by CITES (that is, ''CITES Parties'') through the implementation of CITES permitting requirements in controlling international trade in the species.

(2) Enhances the enforcement of State and Federal conservation measures enacted for the species by regulating international trade in the species, particularly by preventing trade in illegally acquired specimens.

(3) Ensures that records are kept and international trade in the species is monitored.

(4) Requires packing and shipping according to international regulations when any live CITES-listed species (including an appendix-III species) is exported or imported to reduce the risk of injury and cruel treatment.

Cumulative Effects

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have analyzed the cumulative effects of identified threats and conservation actions on the eastern hellbender. To assess the current and future condition of the subspecies, we evaluate the effects of all the relevant factors that may be influencing the subspecies, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire subspecies, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative-effects analysis.

Current and Future Conditions

Methodology for Analysis

Below, we present a summary of our methods for delineating populations and representation units and assessing the resiliency, representation, and redundancy for the eastern hellbender. For greater detail on our methodology, please see the SSA report (Service 2024, pp. 10–15).

The smallest eastern hellbender population unit is an occupied patch of suitable habitat (habitat patch), which may vary in size/length. Occasional or regular interaction among individual eastern hellbenders in different habitat patches likely occurs and is influenced by habitat fragmentation and distance among habitat patches. In some cases, multiple habitat patches within close proximity and with little habitat fragmentation may constitute a single population, while in other cases, a single, highly isolated habitat patch may constitute a single population. Because the available data for eastern hellbender are organized by named stream and these streams often contain one or multiple interacting habitat patches, we used named stream as the unit with which to delineate an individual population. In this context, ''stream'' and ''population'' are used synonymously.

In addition, the eastern hellbender's range includes very long streams (*e.g.,* Ohio River, Allegheny River), which likely include multiple populations that rarely interact. Therefore, for long streams, we delineated populations based on hydrologic unit code (HUC) (Seaber et al. 1987, entire; U.S. Geological Survey 2018, entire). The U.S. Geological Survey (USGS) created the HUC system to provide a uniform numbering system for watersheds across the United States. The number of digits in the code indicates the scale of the hydrologic unit, with larger numbers representing smaller watersheds. For the eastern hellbender, we delineated populations at the fourth of six HUC levels (that is, we used the HUC–8 watershed level, which is the sub-basin level). If there was an eastern hellbender occurrence record for the stream in that watershed, we designated a separate population for each HUC–8 watershed through which the stream flows. For example, in the Ohio River, there are occurrence records in 8 of the 12 HUC–8 watersheds through which the river flows; hence, our analyses assume that there are 8 separate eastern hellbender populations in the Ohio River.

To assess the health, number, and distribution of populations through time, we first developed status and trend categories. We defined a population's status as extant, extirpated, or unknown (US). We developed two categories for extirpated. Presumed extirpated (PX) is assigned to a population for which no individuals have been found since 2000, despite substantive survey effort. We use the descriptor ''presumed'' to acknowledge that absolute extirpation is difficult, if not impossible, to prove. A functionally extirpated (FX) population is one for which only older individuals have been found since 2000 and there is no evidence of reproduction, despite significant survey effort. Although not extirpated in the strictest sense of the term, extirpation is likely inevitable for these populations without substantial intervention and augmentation (Pitt et al. 2017, p. 973).

We developed four population trend (health) categories: stable recruiting (SR), unknown recruiting (UR), declining (D), or unknown trend (UT). SR populations show evidence of recruitment, as demonstrated by a range of post-metamorphic juveniles and adults since 2000, and no documentation of declines. UR

populations show evidence of recruitment (at least 1 juvenile including subadults) since 2000, but we have insufficient data to document a trend. Although UR populations have some evidence of recruitment, we consider only the SR populations to be healthy given that we have data to support that the SR populations are stable. Declining populations are those with observations since 2000 and evidence of a decline in abundance or recruitment (*e.g.,* shift to larger size classes) as demonstrated by survey data. Finally, UT populations are those with observation(s) since 2000, but we have insufficient data to document a trend (recruiting or declining).

To garner insights on the distribution, number, and health of US and UT populations, we asked species experts to use their knowledge of the environmental conditions and status of known populations within their geographic areas of expertise to estimate the number of US and UT populations that they believe are SR, UR, D, FX, or PX.

Resiliency—We analyzed the health of populations over time by tallying the number of populations in the SR, UR, D, FX, and PX categories for current and future time periods. Given these results, we evaluated the ability of the eastern hellbender to withstand environmental stochasticity and periodic disturbances over time.

Representation—To assess the eastern hellbender's representation, we spatially partitioned eastern hellbender diversity into four geographical units (referred to as adaptive capacity units, or ACUs), based on genetic variation in the four evolutionary lineages described above in *Subspecies Needs.* The units are: (1) Missouri (MACU), (2) Ohio River-Susquehanna River drainages (OACU), (3) Tennessee River drainage (TACU), and (4) Kanawha River drainage (KACU).

Redundancy—To assess the eastern hellbender's ability to withstand catastrophic events, we assessed the likelihood of catastrophic events occurring across its range. We defined a catastrophe as an event that would cause complete population failure irrespective of population health, and we considered whether one or more catastrophic events could result in the loss of an entire ACU. We identified disease and chemical pollution as having the potential to cause catastrophic losses at the ACU scale.

Based on available data and number and distribution of populations over time, we developed best-case and worst-case scenarios for both sources of catastrophes. Using these results, we determined the relative risk of extirpation over time at the ACU level, using three broad categories of likelihoods: (1) Unlikely—a less than 33 percent chance of occurring; (2) About as likely as not—a 33 to 66 percent chance of occurring; and (3) Likely—a greater than 66 percent chance of occurring.

Current Condition

Historically, 626 eastern hellbender populations are known to have existed across 15 States. Our assessment, including input from species experts, shows that currently 371 populations (59 percent) are extant, and 255 populations (41 percent) are presumed or functionally extirpated. Of the 371 extant populations across the range, 45 (12 percent) are stable recruiting; 108 (29 percent) are unknown recruiting; and 218 (59 percent) are declining (Service 2024, p. 29).

Eastern hellbender survey effort has increased substantially since 2003. Of the extant populations, 181 were discovered since 2012, including 56 since 2018. Many of these new discoveries are represented by a single adult animal or a positive environmental DNA (eDNA) result, neither of which provides demographic information to determine population trend (Service 2024, p. 68). Although the number of known, extant populations has increased since the time of the Service's assessment in 2018, the number of presumed or functionally extirpated populations has also increased since then (Service 2018, p. 32; Service 2024, p. 27).

Since 2000, the eastern hellbender has been documented from the four ACUs. The number of populations in the ACUs varies, with 5 (1 percent) extant populations in the MACU, 138 (37 percent) in the OACU, 182 (49 percent) in the TACU, and 46 (12 percent) in the KACU (Service 2024, p. 27). Within the ACUs, the number of healthy (SR) populations also varies, with 0 in the MACU, 12 in the OACU, 26 in the TACU, and 7 in the KACU (Service 2024, p. 29). Although UR populations have some evidence of recruitment, we consider only the SR populations to be healthy given that we have data to support that the SR populations are stable.

Disease is a potential catastrophic event for the eastern hellbender. Currently, the risk of ACU-wide extirpation from disease ranges from unlikely to about as likely as not in the TACU, from unlikely to likely in the OACU, and about as likely as not to likely in the KACU and MACU.

Given the loss of populations and reduction of healthy populations across the species' range, eastern hellbender resiliency, redundancy, and representation is substantially lower than historical conditions. The reduced number of populations and the health of the remaining populations has rendered the eastern hellbender less able to cope with stressors and environmental fluctuations, impaired its ability to adapt to novel changes, and increased its vulnerability to catastrophes.

Future Condition

To assess the future number, health, and distribution of eastern hellbender populations, we asked species experts for the anticipated change in the number of SR, UR, D, FX, and PX populations at 10-year (2034) and 25-year (2049) timeframes, based on their estimates of the predicted changes in threats under worst, best, and most likely future plausible scenarios within their geographical area (State) of expertise for each of the timeframes. Most experts had little confidence in predictions beyond 25 years.

Because we determined that the current condition of the eastern hellbender is consistent with the Act's definition of an endangered species (see Determination of Eastern Hellbender's Status, below), we are not presenting the results of the future scenarios in this proposed rule. Please refer to the SSA report (Service 2024, pp. 53–57) for the full analysis of future scenarios.

Determination of Eastern Hellbender's Status

At 16 U.S.C. 1532(16), the Act defines the term ''species'' as including any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature. Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines an ''endangered species'' as a species in danger of extinction throughout all or a significant portion of its range and a ''threatened species'' as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of an endangered species or a threatened species because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial,

recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

The eastern hellbender has experienced a substantial reduction in the number of extant populations compared to historical numbers (41 percent of populations are presumed extirpated or functionally extirpated). Although this subspecies has a broad distribution across its range, with extant populations in all four ACUs, only three of the four ACUs have populations that are considered healthy (stable and recruiting). Overall, of the 371 extant populations, only 45 (12 percent) are thought to be stable and recruiting, and 108 (29 percent) are unknown recruiting. The remaining 218 (59 percent) are declining.

The primary threat to the eastern hellbender is sedimentation (Factor A) caused by multiple sources, which is occurring throughout much of the subspecies' range. Other major stressors include water quality degradation and habitat destruction and modification (Factor A), disease (Factor C), and direct mortality or removal of hellbenders from a population by collection, persecution, recreation, or gravel mining (Factors A, B, and E). The unauthorized collection of eastern hellbenders, especially for the pet trade (Factor B), remains a concern despite regulatory mechanisms to reduce or eliminate overexploitation, such as listing under CITES and State laws (Factor D). Further, these regulatory mechanisms do not address the primary threat of sedimentation. Additional risk factors include climate change and small population effects (Factor E).

The risk of ACU-wide extirpation from disease varies across the eastern hellbender's range from unlikely to about as likely as not in the TACU, from unlikely to likely in the OACU, and about as likely as not to likely in the KACU and MACU. The extirpation of one or more ACU would result in the loss of genetic diversity, reducing the subspecies' adaptive capacity.

Status Throughout All of Its Range

After evaluating threats to the subspecies and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we determined that threats to the eastern hellbender are widespread, varied, cumulative, and synergistic, and they have resulted in significant population declines and a reduction in the geographic range of the subspecies. These reductions impair the subspecies' ability to withstand environmental stochasticity and periodic disturbances, increase its vulnerability to catastrophic events such as disease, and lead to reductions in genetic and ecological diversity, further compromising its ability to adapt to environmental changes. Our analysis indicates these threats are ongoing and affecting the eastern hellbender's current condition, despite the regulatory mechanisms currently in place in some States. Thus, the eastern hellbender is in danger of extinction due to the severity and immediacy of threats currently impacting the subspecies.

We find that a threatened species status is not appropriate for the eastern hellbender because the extent and magnitude of past and ongoing threats has reduced the number and distribution of healthy populations, rendering the eastern hellbender less able to cope with stressors and environmental fluctuations, impaired its ability to adapt to novel changes, and increased its vulnerability to catastrophes to such an extent that the species is currently in danger of extinction.

Thus, after assessing the best scientific and commercial data available, we determine that the eastern hellbender is in danger of extinction throughout all of its range.

Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range. We have determined that the eastern hellbender is in danger of extinction throughout all of its range and accordingly did not undertake an analysis of any significant portion of its range. Because the eastern hellbender warrants listing as endangered throughout all of its range, our determination does not conflict with the decision in *Center for Biological Diversity* v. *Everson,* 435 F. Supp. 3d 69 (D.D.C. 2020), because that decision related to significant portion of the range analyses for species that warrant listing as threatened, not endangered, throughout all of their range.

Determination of Status

Based on the best scientific and commercial data available, we determine that the eastern hellbender meets the Act's definition of an endangered species. Therefore, we propose to list the eastern hellbender as an endangered species in accordance with sections 3(6) and 4(a)(1) of the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition as a listed species, planning and implementation of recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness, and conservation by Federal, State, Tribal, and local agencies, foreign governments, private organizations, and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies, including the Service, and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Section 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

The recovery planning process begins with development of a recovery outline made available to the public soon after a final listing determination. The recovery outline guides the immediate implementation of urgent recovery actions while a recovery plan is being developed. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) may be established to develop and implement recovery plans. The recovery planning process involves the identification of actions that are necessary to halt and reverse the species' decline by addressing the threats to its survival and recovery. The recovery plan identifies recovery criteria for review of when a species may be ready for reclassification from endangered to threatened (''downlisting'') or removal from protected status (''delisting''), and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Revisions of the plan may be done to address continuing or new threats to the species, as new

substantive information becomes available. The recovery outline, draft recovery plan, final recovery plan, and any revisions will be available on our website as they are completed (*https://www.fws.gov/program/endangered-species*), or from our Ohio Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (*e.g.,* restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

If the eastern hellbender is listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the States of Alabama, Georgia, Illinois, Indiana, Kentucky, Maryland, Mississippi, Missouri, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia would be eligible for Federal funds to implement management actions that promote the protection or recovery of the eastern hellbender. Information on our grant programs that are available to aid species recovery can be found at: *https://www.fws.gov/service/financial-assistance*.

Although the eastern hellbender is only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for this subspecies. Additionally, we invite you to submit any new information on this subspecies whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7 of the Act is titled, ''Interagency Cooperation,'' and it mandates all Federal action agencies to use their existing authorities to further the conservation purposes of the Act and to ensure that their actions are not likely to jeopardize the continued existence of listed species or adversely modify critical habitat. Regulations implementing section 7 are codified at 50 CFR part 402.

Section 7(a)(2) states that each Federal action agency shall, in consultation with the Secretary, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Each Federal agency shall review its action at the earliest possible time to determine whether it may affect listed species or critical habitat. If a determination is made that the action may affect listed species or critical habitat, formal consultation is required (50 CFR 402.14(a)), unless the Service concurs in writing that the action is not likely to adversely affect listed species or critical habitat. At the end of a formal consultation, the Service issues a biological opinion, containing its determination of whether the Federal action is likely to result in jeopardy or adverse modification.

In contrast, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. Although the conference procedures are required only when an action is likely to result in jeopardy or adverse modification, action agencies may voluntarily confer with the Service on actions that may affect species proposed for listing or critical habitat proposed to be designated. In the event that the subject species is listed or the relevant critical habitat is designated, a conference opinion may be adopted as a biological opinion and serve as compliance with section 7(a)(2) of the Act.

Examples of discretionary actions for the eastern hellbender that may be subject to conference and consultation procedures under section 7 of the Act are management of Federal lands administered by the U.S. Fish and Wildlife Service, U.S. Forest Service, National Park Service, U.S. Army Corps of Engineers, and Federal Energy Regulatory Commission, as well as actions that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or actions funded by Federal agencies such as the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency. Federal actions not affecting listed species or critical habitat—and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency—do not require section 7 consultation. Federal agencies should coordinate with the Ohio Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**) with any specific questions on section 7 consultation and conference requirements.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to endangered wildlife. The prohibitions of section 9(a)(1) of the Act, and the Service's implementing regulations codified at 50 CFR 17.21, make it illegal for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or to cause to be committed any of the following acts with regard to any endangered wildlife: (1) import into, or export from, the United States; (2) take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) within the United States, within the territorial sea of the United States, or on the high seas; (3) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such wildlife that has been taken illegally; (4) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of commercial activity; or (5) sell or offer for sale in interstate or foreign commerce. Certain exceptions to these prohibitions apply to employees or agents of the Service, the National Marine Fisheries Service, other Federal land management agencies, and State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing permits for endangered wildlife are codified at 50 CFR 17.22, and general Service permitting regulations are codified at 50 CFR part 13. With regard to endangered wildlife, a permit may be issued: for scientific purposes, for enhancing the propagation or survival of the species, or for take incidental to otherwise lawful activities. The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

II. Critical Habitat

Background

Section 4(a)(3) of the Act requires that, to the maximum extent prudent and determinable, we designate a species' critical habitat concurrently

with listing the species. Critical habitat is defined in section 3(5)(A) of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.,* range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that each Federal action agency ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of designated critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation also does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Rather, designation requires that, where a landowner requests Federal agency funding or authorization for an action that may affect an area designated as critical habitat, the Federal agency consult with the Service under section 7(a)(2) of the Act. If the action may affect the listed species itself (such as for occupied critical habitat), the Federal agency would have already been required to consult with the Service even absent the designation because of the requirement to ensure that the action is not likely to jeopardize the continued existence of the species. Even if the Service were to conclude after consultation that the proposed activity is likely to result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement ''reasonable and prudent alternatives'' to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat).

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4(b)(2) of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information compiled in the SSA report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in section 9 of the Act. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of the species. Similarly, critical habitat designations made on the basis of the best scientific data available at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available at the time of those planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered species or a threatened species. Our regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat may not be prudent in circumstances such as, but not limited to, the following:

(i) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(ii) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species;

(iii) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States; or

(iv) No areas meet the definition of critical habitat.

Designation of critical habitat requires the publication of maps and a narrative description of specific critical habitat areas in the **Federal Register**. The degree of detail in those maps and boundary descriptions is greater than the general location descriptions provided in this proposal to list the eastern hellbender as endangered. We are concerned that designation of critical habitat would more widely announce the exact locations of eastern hellbenders to collectors. We find that the publication of maps and descriptions outlining the locations of eastern hellbender populations will further facilitate unauthorized collection and trade, as collectors will know the exact locations where eastern hellbenders occur.

The unauthorized collection of eastern hellbenders for the pet trade is a factor contributing to hellbender declines and remains a threat today. Eastern hellbenders are easily collected because they are slow-moving and have extremely small home ranges. Therefore, publishing specific location information would provide a high level of assurance that any person going to a specific location would be able to successfully locate and collect specimens given the subspecies' site fidelity and ease of capture once located. For a detailed discussion on the threat of commercial collection, refer to the SSA report (Service 2024, pp. 44–46).

In conclusion, we find that the designation of critical habitat is not prudent for the eastern hellbender, in accordance with 50 CFR 424.12(a)(1), because the eastern hellbender faces a threat of unauthorized collection and trade, and designation can reasonably be expected to increase the degree of these threats to the subspecies.

Required Determinations

Clarity of the Rule

We are required by E.O.s 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;

(2) Use the active voice to address readers directly;

(3) Use clear language rather than jargon;

(4) Be divided into short sections and sentences; and

(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951, May 4, 1994), E.O. 13175 (Consultation and Coordination with Indian Tribal Governments), the President's memorandum of November 30, 2022 (Uniform Standards for Tribal Consultation; 87 FR 74479, December 5, 2022), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes and Alaska Native Corporations on a government-to-government basis. In accordance with Secretary's Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

The Eastern Band of Cherokee Indians (North Carolina) and the Seneca Nation (New York) have Tribal lands within the range of the eastern hellbender. We invited participation of these two Tribes in the SSA by requesting data on current status and threats to the subspecies. Additionally, because the Eastern Band of Cherokee Indians provided data in response to this request, they were provided the opportunity to review and comment on a draft of the SSA report. We will continue to work with relevant Tribal entities during the development of any final rules for the eastern hellbender.

References Cited

A complete list of references cited in this rulemaking is available on the internet at *https://www.regulations.gov* and upon request from the Ohio Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Ohio Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

Proposed Regulation Promulgation

Accordingly, the U.S. Fish and Wildlife Service proposes to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

■ 2. In § 17.11, in paragraph (h), amend the List of Endangered and Threatened Wildlife under AMPHIBIANS by removing the entry for ''Hellbender, eastern [Missouri DPS]'' and adding, in alphabetical order, an entry for ''Hellbender, eastern'' to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
*	*	*	*	*
		Amphibians		
*	*	*	*	*
Hellbender, eastern	*Cryptobranchus alleganiensis alleganiensis*.	Wherever found	E	[**Federal Register** citation when published as a final rule].
*	*	*	*	*

Gary Frazer,

Acting Director, U.S. Fish and Wildlife Service.

[FR Doc. 2024–28352 Filed 12–12–24; 8:45 am]

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