proceeding, including seeking cost and benefit analyses. This information may help the Commission identify and evaluate other relevant matters, including compliance costs and burdens on small entities that may result from the matters explored in the *NPRM.*

E. Steps Taken To Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

45. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): ''(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for such small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.''

46. In the *NPRM,* the Commission seeks to identify the appropriate band for devices that could be used to mark fishing equipment and how to best protect maritime safety and incumbents. The Commission has raised three possible for approaches for consideration. As discussed above, the first approach looks at use of the current 1900–2000 kHz band and whether it remains appropriate for use in support of fishing operations. Pursuant to the NDAA21 statutory mandate, the *NPRM* seeks comment on whether imposing requirements with respect to the manner in which devices that could be used to mark fishing equipment are deployed would enable them to be authorized to operate in radio frequencies assigned for AIS consistent with the core AIS purpose to prevent maritime accidents. In the alternative, the Commission raised for consideration whether alternative frequencies could provide a viable option for devices that could be used to mark fishing equipment, in particular 160.900 MHz. To understand the technical, operational, and economic impact of each of these alternatives the Commission has provided small entities and others the opportunity to provide information, including cost and benefit analyses on issues identified in the *NPRM* as well as information on any other issues relevant to this matter.

47. The Commission expects to consider more fully the economic impact on small entities following its review of comments filed in response to the *NPRM,* including costs and benefits analyses, and this IFRA. The Commission's evaluation of the comments filed in this proceeding will shape the final conclusions it reaches, the final alternatives it considers, and the actions it ultimately takes in this proceeding to minimize any significant economic impact that may occur on small entities.

F. Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rules

48. None.

VI. Ordering Clauses

49. Accordingly, *it is ordered,* pursuant to sections 4(i), 301, 303(r), 308, 309, and 384 of the Communications Act of 1934, 47 U.S.C. 154(i), 301, 303(r), 308, 309, and 384, and pursuant to Section 8416 of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, that this Notice of Proposed Rulemaking is *hereby adopted.*

50. *It is further ordered* that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, *shall send* a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

Federal Communications Commission.

Marlene Dortch,

Secretary.

[FR Doc. 2021–14362 Filed 7–6–21; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R6–ES–2020–0057; FF09E22000 FXES11130900000 201]

RIN 1018–BE07

Endangered and Threatened Wildlife and Plants; Reclassification of the Razorback Sucker From Endangered to Threatened With a Section 4(d) Rule

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to reclassify the razorback sucker (*Xyrauchen texanus*) from an endangered species to a threatened species under the Endangered Species Act of 1973, as amended (Act). The proposed downlisting is based on our evaluation of the best available scientific and commercial information, which indicates that the species' status has improved due to conservation actions and partnerships, and the threats to the razorback sucker identified at the time of listing in 1991 have been eliminated or reduced to the point that the species is no longer currently in danger of extinction throughout all or a significant portion of its range, but it is still likely to become so within the foreseeable future without current active and intensive management. We also propose a rule under section 4(d) of the Act that provides for the conservation of the razorback sucker.

DATES: We will accept comments received or postmarked on or before September 7, 2021. 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 August 23, 2021.

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

(1) *Electronically:* Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* In the Search box, enter FWS–R6–ES–2020–0057, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment Now!''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R6–ES–2020–0057; 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 *http://www.regulations.gov.* This generally means that we will post any personal information you provide us (see *Public Comments,* below, for more information).

Document availability: Supporting documentation used to prepare this proposed rule, including the 5-year review and the species status assessment (SSA) report, are available on the internet at *http://www.regulations.gov* under Docket No. FWS–R6–ES–2020–0057.

FOR FURTHER INFORMATION CONTACT: Tom Chart, Director, U.S. Fish and Wildlife Service, Upper Colorado River Endangered Fish Recovery Program, P.O. Box 25486, DFC, Lakewood, CO 80225; telephone: 303–236–9885. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, a species may warrant reclassification from endangered species status to threatened species status if it no longer meets the definition of an endangered species (in danger of extinction). Downlisting a species as a threatened species can only be made by issuing a rulemaking.

What this document does. This document proposes to reclassify the razorback sucker from an endangered species to a threatened species (*i.e.,* to ''downlist'' the species) on the Federal List of Endangered and Threatened Wildlife, with a rule issued under section 4(d) of the Act, based on the species' current status, which has been improved and maintained through implementation of conservation actions such as stocking, flow and habitat management, and invasive species control. This proposed rule and the associated SSA report reassess all available information regarding the status of and threats to the razorback sucker.

The basis for our action. Under the Act, we determine whether a species is an ''endangered species'' or ''threatened species'' based on 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 may reclassify a species if the best available commercial and scientific data indicate the species no longer meets the applicable definition in the Act. For the reasons discussed below, we have determined that the razorback sucker no longer meets the Act's definition of an endangered species, but does meet the Act's definition of a threatened species. The actions of multiple conservation partners over the past 30 years have improved the condition of razorback sucker and reduced threats to the species. However, there is enough risk associated with the species' reliance on management actions and the potential loss of these important management actions such that the species meets the definition of a threatened species.

The status of the razorback sucker has been improved and maintained by a variety of conservation actions such as stocking, flow and habitat management, and invasive species control that benefit the razorback sucker. Conservation programs implemented by many partners improved conditions such that the razorback sucker now has multiple, large, reproducing populations distributed across much of its originally occupied range, with four populations in the upper basin and three populations in the lower basin. In total, conditions have improved, and the species now has sufficient resiliency, redundancy, and representation such that it is not currently at risk of extinction throughout all of its range (*i.e.,* it does not meet the Act's definition of an endangered species). However, recruitment of razorback sucker to the adult life stage remains rare in all but one population, and the species currently depends on management actions in order for populations to be resilient. In the future, management of the species and the conditions of the resources required by the species are likely to change such that the species is likely to become an endangered species in the foreseeable future (*i.e.,* the species meets the Act's definition of a threatened species).

We are proposing to promulgate a section 4(d) rule. We propose to prohibit all intentional take of the razorback sucker and specifically tailor the incidental take exceptions under section 9(a)(1) of the Act as a means to provide protective mechanisms to State, Federal, Tribal, and private partners so that they may continue with certain activities that are not anticipated to cause direct injury or mortality to the razorback sucker and that will facilitate the conservation and recovery of the species.

Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that the species should remain listed as endangered instead of being reclassified as threatened, or we may conclude that the species no longer warrants listing as either an endangered species or a threatened species. We may also make revisions to the 4(d) rule based on public comment. Because we are still accepting, considering, and analyzing additional information, a final decision that falls within any of those categories could be a logical outgrowth of this proposal.

Information Requested

Public Comments

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 concerned governmental agencies, Native American Tribes, the scientific community, industry, or other interested parties concerning this proposed rule.

We particularly seek comments concerning:

(1) Reasons we should or should not reclassify the razorback sucker as a threatened species.

(2) New information on the historical and current status, range, distribution, and population size of the razorback sucker.

(3) New information on the known and potential threats to the razorback sucker, including predatory, nonnative fish.

(4) New information regarding the life history, ecology, and habitat use of the razorback sucker.

(5) Current or planned activities within the geographic range of the razorback sucker that may have adverse or beneficial impacts on the species.

(6) Information on regulations that are necessary and advisable to provide for the conservation of the razorback sucker and that the Service can consider in developing a 4(d) rule for the species. In particular, information concerning the extent to which we should include any of the section 9 prohibitions in the 4(d) rule or whether any other forms of take should be excepted from the prohibitions in the 4(d) rule.

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, will not be considered in making a determination, as 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 *http://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 *http://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 *http://www.regulations.gov.*

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. For the immediate future, we will provide these public hearings using webinars that will be announced on the Service's website, in addition to the **Federal Register**. The use of these virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Supporting Documents

A species status assessment (SSA) team prepared an SSA report for the razorback sucker. 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 species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species.

In accordance with our July 1, 1994, peer review policy (59 FR 34270; July 1, 1994), our August 22, 2016, Director's Memo on the Peer Review Process, and the Office of Management and Budget's December 16, 2004, Final Information Quality Bulletin for Peer Review (revised June 2012), we solicited independent scientific reviews of the information contained in the razorback sucker SSA report. We sent the SSA report to six independent peer reviewers and received three responses. Results of this structured peer review process can be found at *https://www.fws.gov/mountain-prairie/science/peerReview.php.* The SSA report was also submitted to our Federal, State, and Tribal partners for scientific review. We received review from 13 partners including States, Federal agencies, private partners and scientific experts. In preparing this proposed rule, we incorporated the results of these reviews, as appropriate, into the final SSA report, which is the foundation for this proposed rule.

Previous Federal Actions

By the middle of the 20th century, the Colorado River ecosystem where the razorback sucker lives had been greatly altered by large dams and smaller agricultural diversions, water depletions for municipal and agricultural uses, and the proliferation of many nonnative fish species. The razorback sucker was first proposed for listing as a threatened species on April 24, 1978 (43 FR 17375); the proposal was subsequently withdrawn on May 27, 1980 (45 FR 35410), after a final rule was not issued within 2 years of the proposed rule to comply with provisions of the Act as amended in 1978 (16 U.S.C. 1531 *et seq.*). Citing a lack of recruitment to reproductive age, dwindling numbers of adults, and occupation of only 25 percent of its historical range, the razorback sucker was proposed to be listed as an endangered species on May 22, 1990 (55 FR 21154). The final rule listing the razorback sucker as an endangered species was published on October 23, 1991 (56 FR 54957). Critical habitat was subsequently designated as 2,776 kilometers (km) (1,725 miles (mi)) of the Colorado River basin on March 21, 1994 (59 FR 13374), which included portions of the Yampa, White, Green, Duchesne, Colorado, Gunnison, San Juan, Verde, Salt and Gila Rivers, and several Colorado River mainstem reservoirs including Lake Mead and Lake Mohave.

We issued the first recovery plan for razorback sucker on December 23, 1998, which identified predation by nonnative fish species and loss of habitat as the primary reasons for the decline of the razorback sucker (Service 1998, entire). The plan was amended and supplemented with recovery goals on August 1, 2002 (Service 2002, entire). The 2002 recovery goals describe two recovery units, the upper and lower basins, which are physically demarcated by Glen Canyon Dam and have unique demographic trends, threats, and management actions.

We completed status reviews (''5-year reviews'') under section 4(c)(2)(A) of the Act for razorback sucker on August 30, 2012, and September 25, 2018 (Service 2012; Service 2018b, entire). Our most recent 5-year review completed on September 25, 2018, recommended the razorback sucker be downlisted (*i.e.,* reclassified from an endangered to a threatened species), which prompted this proposed rule.

Proposed Reclassification Determination

Background

A thorough review of the razorback sucker is presented in the SSA report (Service 2018a, entire), found at *http://www.regulations.gov* under Docket No. FWS–R6–ES–2020–0057, which is briefly summarized here.

Species Description

The razorback sucker is a freshwater fish species endemic to warm-water portions of the Colorado River basin in the southwestern United States, uniquely identified by a bony, dorsal keel (ridge) located behind its head. The species tolerates wide-ranging temperatures, high turbidity and salinity, low dissolved oxygen, and wide-ranging flow conditions. Razorback sucker sexually mature at 3 to 4 years of age, grow up to 1 meter (m) (3 feet (ft)) long, can live for more than 40 years, and spawn multiple times over a lifespan.

Habitat and Range

Razorback sucker are found throughout the Colorado River basin, but are most common in low-velocity habitats such as backwaters, floodplains, flatwater river reaches, and reservoirs. The species' historical range includes most of the Colorado River basin, from Wyoming to the delta in Mexico, including the States of Colorado, Utah, New Mexico, Arizona, Nevada, and California, and Mexican States of Baja and Sonora. Dam construction across the basin dramatically altered flow-regimes and habitat, disconnecting floodplain habitats, and converting long reaches of river to reservoirs. These reservoirs initially supported some of the largest populations of razorback sucker (greater than 70,000 individuals) until nonnative sportfish were introduced and became abundant, at which time recruitment, or the survival of young to become adults, became rare and populations declined.

Recovery Criteria

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Recovery plans must, to the

maximum extent practicable, include ''objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions [of section 4 of the Act], that the species be removed from the list.''

Recovery plans provide a roadmap for us and our partners on methods of enhancing conservation and minimizing threats to listed species, as well as measurable criteria against which to evaluate progress towards recovery and assess the species' likely future condition. However, they are not regulatory documents and do not substitute for the determinations and promulgation of regulations required under section 4(a)(1) of the Act. A decision to revise the status of a species, or to delist a species is ultimately based on an analysis of the best scientific and commercial data available to determine whether a species is no longer an endangered species or a threatened species, regardless of whether that information differs from the recovery plan.

There are many paths to accomplishing recovery of a species, and recovery may be achieved without all of the criteria in a recovery plan being fully met. For example, one or more criteria may be exceeded while other criteria may not yet be accomplished. In that instance, we may determine that the threats are minimized sufficiently and that the species is robust enough that it no longer meets the definition of an endangered species or a threatened species. In other cases, we may discover new recovery opportunities after having finalized the recovery plan. Parties seeking to conserve the species may use these opportunities instead of methods identified in the recovery plan. Likewise, we may learn new information about the species after we finalize the recovery plan. The new information may change the extent to which existing criteria are appropriate for identifying recovery of the species. The recovery of a species is a dynamic process requiring adaptive management that may, or may not, follow all of the guidance provided in a recovery plan.

We published the first recovery plan for the razorback sucker in 1998, which outlined a suite of recovery actions, including maintaining genetic diversity, reversing the declining population trends in Lake Mohave and the Green River subbasin, protecting and restoring habitat, and augmenting or reestablishing five additional populations of razorback sucker in designated critical habitat (Service 1998, p. vi). In 2002, the razorback sucker recovery goals supplemented and amended the 1998 recovery plan, providing demographic criteria and management actions needed for recovery (Service 2002, entire). When the 2002 recovery goals were published, wild populations were considered to be in serious jeopardy with only small numbers of wild razorback sucker remaining in the Green River, upper Colorado River and San Juan River subbasins, lower Colorado River between Lake Havasu and Davis Dam, reservoirs of Lakes Mead and Mohave, and in small tributaries of the Gila River subbasin (Verde River, Salt River, and Fossil Creek). Furthermore, when the goals were approved, a minimum viable population (MVP) was estimated to be at least 5,800 adults. The recovery goals include the following reclassification criteria (summarized below for brevity):

Downlisting can occur if, over a 5-year period, all of the following criteria are met with genetically and demographically viable, self-sustaining populations:

Criterion 1: The trend in adult point estimates for two populations in the upper basin (Green River subbasin and either the upper Colorado River or San Juan River subbasin) do not decline significantly. Recruitment of naturally produced fish equals or exceeds mean annual adult mortality for each of the populations. Point estimates for each population must equal or exceed 5,800 adults.

Criterion 2: A genetic refuge is maintained in Lake Mohave.

Criterion 3: The trend in adult point estimates for two populations in the lower basin do not decline significantly. Recruitment of naturally produced fish equals or exceeds mean annual adult mortality for each of the populations. Point estimates for each population must equal or exceed 5,800 adults.

Criterion 4: Site-specific management actions are identified, developed, and implemented.

For downlisting criterion 4, the recovery goals described the following management actions needed to support the species (summarized for brevity):

(1) Reestablish populations with hatchery-produced fish.

(2) Identify and maintain genetic variability of razorback sucker in Lake Mohave.

(3) Provide, and legally protect, habitat and flow regimes.

(4) Provide passage over barriers in occupied habitat.

(5) Investigate water temperatures in the Gunnison River.

(6) Minimize entrainment in diversion/out-take structures.

(7) Ensure adequate protection from overutilization.

(8) Ensure adequate protection from diseases and parasites.

(9) Regulate nonnative fish releases and escapement.

(10) Control problematic nonnative fishes as needed.

(11) Minimize the risk of hazardous-materials spills in critical habitat.

(12) Remediate water quality problems.

(13) Minimize the threat of hybridization with white sucker.

(14) Provide for the long-term management and protection of populations and their habitats if the species were delisted.

The recovery goals further describe that delisting can occur if, 3 years after the downlisting criteria are met, the downlisting criteria continue to be met.

The current condition of the razorback sucker partially meets the 2002 recovery criteria. Criterion 1 has been partially met, as the number of adults, whether stocked or wild-produced, present in the basin exceeds the 5,800 benchmark in both the Green and Colorado Rivers. However, the second target that recruitment of naturally produced fish equals or exceeds mean annual adult mortality for each of the populations has not been achieved due to the lack of natural recruitment (survival of wild spawned individuals to the adult life stage) as a result of predation. Not only is Criterion 1 only partially met without natural recruitment, but without ongoing stocking to offset the lack of natural recruitment, the population size would quickly fall below the demographic target for adults and would not be self-sustaining, which would not satisfy the recovery vision of a self-sustaining species. All stages of the life-cycle are routinely observed until the juvenile life stage, signs of which are increasing across the upper basin, but nonnative predators eat the juveniles before they can grow into adults. The juvenile life stage is the only life stage absent on a wide scale. Criterion 2 has been met, as a genetic refuge is maintained in Lake Mohave. Criteria 3 has been partially met, as the lower basin is home to the only naturally recruiting population in Lake Mead, but population levels are low (less than 500 adults). Adult populations of thousands of razorback sucker persist in both Lake Mohave and Lake Havasu (and their associated river reaches), but neither population is naturally recruiting or meets the 5,800-adult threshold. Without continued stocking, these populations would quickly fall below this threshold due to the lack of natural recruitment resulting from the ongoing threat of predation from nonnative predatory fish. Criterion

4 has been partially met, with many of the threats to the species managed or abated. Nonnative fish remain a persistent threat in both basins.

Since 2002, the best available science regarding razorback sucker has increased, including knowledge about the species and its associated threats. Regarding the first and third criteria, we now expect that a 5-year period may not be adequate to consider the demographic variability of razorback sucker populations resulting from substantial environmental variability in the Colorado River ecosystem. Razorback sucker adapted to a highly variable ecosystem with fluctuating levels of drought and flood, and thus populations would likely see both population increases and decreases over that time. The species has a long lifespan to survive periods of poor resource conditions and has high reproductive potential to compensate during periods of suitable resource conditions.

Based on the updated scientific knowledge of razorback sucker, the 2002 recovery goals should be reviewed and updated. Regarding downlisting criterion 3, the minimum viable population (MVP) was established without considering the extent or boundary of each population. For example, Lake Powell was once considered of little ecological value, yet groups of razorback sucker have established residency in both the Colorado and San Juan River inflow areas. Finally, regarding downlisting criterion 4, a number of the management actions have been achieved, such as items (2), (4), (5), and (6); a number of the actions are ongoing and still needed, such as items (1), (3), (9), (10), (13), and (14); and a number of the actions are no longer considered needed for the species, such as items (7), (8), (11), and (12). In addition, the actions outlined in the Lower Colorado River Multi-Species Conservation Program's (LCR;MSCP) workplan do not include control of nonnative species, restoring natural flow variability below dams, or a future absent sustained augmentation (with the exception of the Lake Mead population). As such, the 2018 5-year review of the status of the species recommended revising the 2002 recovery goals to incorporate new information about the species. We expect to revise the recovery plan for razorback sucker when this rulemaking process is complete.

Regulatory and Analytical Framework

Regulatory Framework

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 is an ''endangered species'' or a ''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 consider these same five factors in reclassifying a species from endangered to threatened (50 CFR 424.11(c)–(e)).

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 now and in the foreseeable future.

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. The term foreseeable future extends only so far into the future as we can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. ''Reliable'' does not mean ''certain''; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

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 species, including an assessment of the potential threats to the species. The SSA report does not represent our decision on whether the species should be reclassified as a threatened species under the Act. It does, however, 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. The following

is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at *http://www.regulations.gov* under Docket No. FWS–R6–ES–2020–0057.

To assess razorback sucker viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years); redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events); and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species' ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated individual species' life-history needs. The next stage involved an assessment of the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species' 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 a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

Summary of Biological Status and Threats

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

Species Needs

Individual razorback sucker need: Complex lotic (rapidly moving freshwater) and lentic (still freshwater) habitats for spawning, rearing, feeding, and sheltering; suitable water temperatures and quality for spawning, egg incubation, larval development, and growth; variable flow regimes in lotic systems to provide access to off-channel wetland habitats; and an adequate and reliable food supply (Service 2018a, pp. 21–24). We briefly summarize each of these needs below.

Habitat—Individual razorback sucker need specific habitat types to breed, feed, and shelter, including rocky substrates, warm shallow waters, and deeper waters (Service 2018a, p. 21). Rocky substrates of boulder, cobble, and clean gravel are used for spawning and subsequent egg development. Larvae and juveniles need nursery habitats, which include persistent, shallow, warm, and sheltered shorelines of backwaters, floodplains, or similar habitat types with cover present (vegetation and turbidity) to avoid predation. Adults also need pockets of deeper water, either in reservoirs, large eddies, or pools with slow velocities.

Water quality and temperature—Razorback sucker tolerate a wide range of water quality conditions, including warm temperatures, low dissolved oxygen, and high levels of turbidity and salinity. The species opportunistically selects appropriate water temperatures for spawning as temperature can affect hatching, growth, and survival of larvae (Service 2018a, p. 69).

Variable flow—Lotic populations in much of the upper basin depend on variable flows in the form of high spring peaks to carry larvae into floodplain wetlands that provide sufficient food and protection from nonnative predators (Service 2018a, p. 22).

Food supply—Razorback sucker are omnivorous (feed on plants and animals), with a diet that is highly dependent on habitat and food availability.

Range and connectivity—Razorback sucker can move long distances through unimpeded river systems, allowing for dispersal into new habitat and selection of appropriate conditions for spawning.

Each population needs resiliency to rebound from disturbance, which is provided by the abundance of individuals and the completion of all life stages, or recruitment. Stocked individuals are long-lived, migrate, and spawn, which routinely produces viable eggs and subsequent larvae. However, natural recruitment, the survival of wild-spawned individuals to the adult life stage, is rare due to predation on juveniles by nonnative fish and reduced nursery habitat availability. Therefore, population resiliency currently depends on management actions, primarily the stocking and reintroduction of hatchery reared individuals. The species also needs multiple populations to provide adequate redundancy against potential catastrophic events and genetic and ecological diversity to maintain the adaptive traits of the species (Service 2018a, pp. 21–24). Before dam construction in the 1960s, there were nine populations of razorback sucker, and the species is currently found in seven populations throughout the Colorado River basin.

Risk Factors

To determine the condition of razorback sucker populations, we evaluated a number of stressors that influence the resiliency of razorback sucker populations, such as river flows, nonnative fish, genetic factors, alterations to habitat, overutilization, parasites, disease, pollutants, and the effects of global climate change (Service 2018a, pp. 27–42). The stressors that most influence the resiliency of razorback sucker populations are reductions in flow regimes, which reduce available habitat and connectivity, and predation by nonnative fish species. The effects of global climate change were not anticipated to affect the species in the near term, but could affect habitat connectivity, flow conditions, and densities of predatory nonnative fish over longer timeframes (Service 2018a, pp. 27–29).

Altered flow regimes reducing access to nursery habitat—Complex backwater and floodplain wetland habitat support the growth of larval and juvenile razorback sucker. Dam installations in the 20th century altered river flow regimes by reducing spring peak flows, which limited access to the floodplain habitat needed by larvae and juveniles. Altered flow regimes also reduced the complexity of in-river habitat by encouraging establishment of nonnative vegetation on previously dynamic sandbars, which prevents the development of backwater pools and reduced in-river vegetative cover used by larvae and juvenile razorback sucker.

Nonnative fish species—Razorback sucker lack competitive and predator defense abilities compared to fish that evolved in more species-rich regions (Martinez *et al.* 2014, p. 1). Predation of young razorback sucker by large, nonnative piscivores (carnivores that eat fish) is a major cause of recruitment failure throughout the basin. Species of particular concern in the upper basin include smallmouth bass (*Micropterus dolomieu*), northern pike (*Esox lucius*), and walleye (*Sander vitreus*) in the Green and Colorado River basins and channel catfish (*Ictalurus punctatus*) in

the San Juan River basin. Smallmouth bass, in particular, are adept at establishing large riverine populations. Species of particular concern in the lower basin include striped bass (*Morone saxatilis*) and flathead catfish (*Pylodictis olivaris*), both of which can consume all life stages of razorback sucker, including adults. Nonnative fishes may also compete with razorback sucker for food and habitat. Additionally, impacts of nonnative fishes can be so considerable that they prohibit use of habitat by razorback sucker.

Climate change—The potential effects of climate change were assessed using the U.S. Bureau of Reclamation's SECURE Water Act Section 9503(c) Report (Reclamation, 2016, entire). The Colorado River basin is expected to have higher temperatures, with seasonal drying, but increases in fall and winter precipitation in some areas (Reclamation 2016, pp. 3–9). In the long term, razorback sucker are likely to benefit from warming conditions with higher growth rates, but may be impacted by lower flow conditions that cannot be mitigated by water management. Warming conditions may also increase nonnative warm-water fishes that prey on razorback sucker. These impacts are more likely to occur in the longer timeframe (*i.e,* greater than 30 years). Climate change is not expected to be a significant stressor in the near term, but the effects could increase in the long term (Service 2018a, pp. 99–103).

Conservation Actions

Ongoing management actions to benefit razorback sucker are primarily undertaken by three expansive, multi-stakeholder management programs: The Upper Colorado River Endangered Fish Recovery Program (Upper Basin Program), established in January 1988 and funded through 2023; the San Juan River Basin Recovery Implementation Program (San Juan Program) established in 1992 and funded through 2023; and the LCR—MSCP, established in 2005 and funded through 2055, as well as a variety of smaller working groups. These conservation programs' goals are to work toward improving population resiliency by augmenting adult populations, providing beneficial flows, creating habitat and reducing nonnative predators and competitors. Our SSA report provides additional information on these conservation programs (Service 2018a, pp. 42–51).

In the upper basin, augmentation occurs from three established broodstocks at three independent hatchery facilities: Southwestern Native Aquatic Resources and Recovery Center (SNARRC), Ouray National Fish Hatchery at Randlett (Randlett), and Ouray National Fish Hatchery–Grand Valley (Grand Valley). Each hatchery maintains its own broodstock according to genetic and management plans (Czapla 1999, entire; Ryden 2005, entire; Integrated Stocking Plan Revision Committee 2015, entire; Wilson 2012, entire) developed by the programs they serve. The Grand Valley and Randlett hatcheries annually spawn, produce, and distribute 6,000 razorback sucker averaging 350 mm or greater into the Colorado and Green River basins respectively. SNARRC produces sufficient larvae for 11,400 razorback sucker that are grown at sister facilities before distribution into the San Juan River Basin. In the lower basin, the established population in Lake Mohave is the broodstock for most stocking efforts as it has been documented as the most genetically diverse population. Commonly referred to as repatriation, wild larvae are collected; reared at Willow Beach National Fish Hatchery, Achii Hanyo Native Fish Rearing Facility, Overton Wildlife Management Area, and the Lake Mead Fish Hatchery; and released into Colorado River reaches managed by LCR–MSCP (LCR–MSCP 2015, pp. 9–12). In addition, a backup broodstock has been developed at SNARRC that provides larvae for rearing at Bubbling Ponds Native Fish Hatchery to avoid the movement of quagga mussels found in Lake Mohave (LCR–MSCP 2015, p. 12) beyond the Colorado River basin. Overall, the LCR–MSCP has committed to stocking or repatriating 660,000 razorback sucker into the Colorado River over 50 years and until 2055. Augmentation, including stocking and repatriation, is the primary tool used to enhance the resiliency of razorback sucker in the lower basin. In the upper basin, stocking is coupled with other management actions that all contribute to population resiliency on the landscape.

Flow recommendations have been developed for most major rivers in the upper basin (Holden 1999, entire; Muth *et al.* 2000, entire; McAda 2003, entire) to support conservation of native fish species, including razorback sucker. Flow recommendations commonly set both peak and base flow recommendations based on the hydrology of the system in a given year based on their effects on native fish species and downstream geomorphology. Most important for razorback sucker in the Green River are spring peaks timed to move wild-produced larvae into warm, food-rich floodplain wetlands that are then managed to exclude nonnative fish.

Successful floodplain management for razorback sucker nursery habitat requires: (a) Flow management that provides floodplain connection when larval razorback sucker are present in the system; (b) floodplains that are retrofitted with water control structures that restrict entry of large-bodied fish and allow managers to fill and drain the habitat at the beginning and end of the growing season, respectively; and (c) a supplemental water source to freshen floodplain water quality through the summer. The Upper Basin Program has developed multiple wetlands that can connect under various flow regimes in the Green River downstream of Flaming Gorge Dam. One wetland, Stewart Lake, has provided the largest naturally produced cohort of wild razorback sucker surviving through their first summer of life to date in the upper basin (Schelley *et al.* 2016, p. 7).

The Upper Basin and San Juan Programs are working to reduce the numbers of nonnative fishes, focusing primarily on smallmouth bass, northern pike, and walleye in the Green and upper Colorado River subbasins and channel catfish in the San Juan. A comprehensive nonnative fish control strategy was developed by the Upper Basin Program encompassing active removal from riverine habitats, escapement prevention from upstream reservoirs, revised stocking guidelines, harvest regulation changes, and outreach messaging (Martinez *et al.* 2014, entire). In-river removal efforts are scientifically evaluated and adjusted as appropriate to increase effectiveness.

In addition, both the Upper Basin and San Juan Programs have installed fish passage facilities to support range expansion of the species and have screened irrigation canals to prevent entrainment. Research, monitoring, and habitat management occur throughout the Colorado River basin.

Current Condition

The SSA assesses eight populations of razorback sucker: Four populations in the upper basin (Green, upper Colorado, and San Juan River subbasins, and Lake Powell) and four in the lower basin (Lake Mead [including upstream mainstem river], Lake Mohave [including upstream mainstem river], the Colorado River between Davis and Parker Dams [Lake Havasu], and the Colorado River mainstem below Parker Dam). Razorback sucker were historically present in the Gila River system, but the system was not evaluated in the SSA because wild razorback sucker were extirpated from

the system and subsequent stocking efforts have ceased without establishing a population. Table 1 summarizes the current condition for each population in terms of four resiliency categories (High, Medium, Low, and Extirpated) which is an average of our evaluation of condition for the population factors of population size, evidence of reproduction, and recruitment that influence the resiliency of each population. Definitions of population factors for each category (High, Medium, Low, and Extirpated) were developed to calibrate our understanding of these factors in terms of resiliency (Service 2018a, p. 54). In general, populations in higher resiliency categories are better able to withstand stochastic events than populations in lower resiliency categories. To calculate an overall score for resiliency for each population, we assigned a 3 for population factors with High condition, 2 for Medium condition, 1 for Low condition, and 0 for Extirpated condition, and then calculated an average (High resiliency 2.26–3; Medium resiliency 1.51–2.25; Low resiliency 0.76–1.5; and Extirpated 0–0.75) (Service 2018a, p. 95). Currently, Lake Mead has High resiliency, the Green River subbasin has Medium resiliency, the Colorado and San Juan river subbasins, Lake Powell, Lake Mohave, and Lake Havasu have Low resiliency, and the Colorado River below Parker dam is currently extirpated (Table 1). Our SSA report provides additional detail regarding our evaluation of current condition (Service 2018a, pp. 52–97).

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Table 1.—Current Condition of Razorback Sucker Populations

		Population Factors			
Basin	**Population Name**	**Estimated Population Size**[a]	**Evidence of Reproduction** (Based on presence of wild larvae)	**Recruitment**[b]	**Resiliency**
Upper Basin	Green River	36,355	Yes	Possible	Medium
	Upper Colorado River	8,058	Yes	No	Low
	San Juan River	4,000–5,000[c]	Yes	Possible	Low
	Lake Powell	San Juan River Inlet: approximately 2,000[d] Colorado River Inlet: 2,184	Yes	Possible	Low
Lower Basin	Lake Mead	360[e]	Yes	Yes	High
	Lake Mohave	3,471[e]	Yes	No	Low
	Lake Havasu	3,803[e]	Yes	No	Low
	Lower Colorado River	169[e]	Low	No	Extirpated
Gila Basin	Gila River	-	No	No	Extirpated

[a] As presented in Service 2018a, entire unless otherwise designated below.

[b] "Possible" indicates that signs of recruitment have been documented to either the young of year or juvenile stage, but are not yet sufficient to imply recruitment on a large scale.

[c] Diver and Wilson, 2018, p. 5.

[d] Pennock, 2019, p. 14.

[e] LCR–MSCP, 2019, p. 48, population estimate in Lake Havasu declined due to a change in methodology.

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Below, we summarize the current condition for each known population of razorback sucker, taking into account the stressors and conservation actions for each population.

The Upper Basin—The four upper basin populations currently have adequate food and unimpeded connectivity, except for a waterfall that blocks upstream movement of razorback sucker from Lake Powell into the San Juan River. In other areas, fish passage structures have been constructed to ensure that there are no other impediments to movement between populations. Populations in the upper basin generally have medium-quality habitat, water temperature, water quality, and variable flow, with the exception of the Green River subbasin, where water temperature and quality and variable flow are in high condition (Service 2018a, p. 85). Since the early 2000s, management of river flows has restored much of the important intra- and inter-annual variability of river flow needed to support razorback sucker. Flows in the Green River are actively managed to benefit razorback sucker by using biologically triggered releases from Flaming Gorge Dam to increase connectivity with off-channel floodplains. Four floodplains are managed in conjunction with these flows on the Green River with plans to create a fifth in the year 2020. Another floodplain wetland is being developed on the Colorado River near Moab, Utah, to provide nursery habitat. Reservoirs in the Aspinall Unit along the Colorado River changed release patterns to provide downstream flows that support razorback sucker. In addition, the Upper Basin Program acquired water stored in reservoirs in the Yampa and Colorado Rivers to enhance flow conditions when needed, such as during low flow periods in summer. In the San Juan River, flow recommendations for Navajo Reservoir support creation and sustained presence of habitat. Therefore, conservation actions have helped restore flow regimes to increase connectivity to floodplain habitats, such that the stressor of altered flow regimes has been reduced in the upper basin populations.

Predation by nonnative fish species remains a significant stressor to razorback sucker in the upper basin, resulting in populations with low overall conditions throughout most of the upper basin. Over 50 nonnative fish species have been introduced into the upper basin, some of which prey on or compete with razorback sucker. Most upper basin populations have substantial levels of predatory nonnative fish species, including channel catfish, smallmouth bass, northern pike, and walleye, which likely prevent recruitment of young razorback sucker to the adult life stage on a large scale. In addition, small-bodied nonnative fish are ubiquitous across the upper basin and likely prey on younger life-stages of razorback sucker. The Upper Basin Program implements nonnative fish management actions, such as removing predatory fish from approximately 966 km (600 mi) of river and screening reservoir outlets to prevent predators from escaping into downstream habitats used by razorback sucker. State partners in the Upper Basin Program no longer stock certain nonnative predators and instead implement harvest regulations that promote the removal of predatory fish throughout the upper basin. The San Juan River subbasin is free from nonnative predators with the exception of channel catfish, which are removed by the San Juan Program.

Upper basin populations of razorback sucker are monitored using mark-recapture population estimation, some with estimates dating back to the late 1980s. Population monitoring in the late 1980s and early 1990s estimated populations of hundreds of individuals in the middle Green River. By 2000, the estimates had declined to approximately 100 wild adults, prompting the development of a stocking program in the upper basin. The most recent population estimates from 2011 to 2013 indicate the Green River subbasin population to be in the tens of thousands of adult razorback sucker that were stocked as a result of management actions (Zelasko *et al.* 2018, pp. 11–13). Although successful reproduction and larval presence is documented annually in the Green River population, there is no natural recruitment due to predation by nonnative predatory fish, so this population is not self-sustaining. Young-of-year life stage (surviving through the first summer of life) has been documented annually since 2013 in managed off-channel wetlands. Captures of wild juveniles have increased in the Green River basin, including the detection of a wild-reared razorback sucker after 3 years in the wild in the spring of 2019 (Upper Colorado River Endangered Fish Recovery Program 2019, p. 4). This detection is the first documentation of a wild-spawned razorback sucker surviving for three years, suggesting that survival of young razorback sucker is increasing in the basin. Additionally, the Upper Basin Program stocks 6,000 adult razorback sucker into the Green River subbasin annually to support the population. However, natural recruitment (survival of wild-spawned individuals to adult life stage) remains rare.

The number of wild razorback sucker in the upper Colorado River subbasin decreased by the 1970s, and the population was functionally extirpated by 2000. The most recent population estimates (2013 to 2015) indicate that the population numbers in the thousands (Elverud 2020, pp. 26,92). The upper Colorado River subbasin population is not self-sustaining, but reproduction and larval presence have been documented. Survival to the juvenile stage is rare, but has been confirmed at low levels. As in the Green River, recruitment to the adult life stage is rare, if present, likely due to persistent predation from nonnative fishes and the lack of nursery habitat. The Upper Basin Program stocks 6,000 adults annually into the upper Colorado River subbasin to support the population. There is one managed floodplain wetland on the Colorado River.

Sampling efforts from 1987 and 1993 failed to collect any razorback sucker in the San Juan River, prompting stocking efforts in the basin. Populations in the San Juan River subbasin have recently been monitored using catch-per-unit effort (CPUE), which saw a significant increase in the population after 2010 (Schleicher 2016, pp. 17–18). Recent population estimates indicate the adult population is relatively stable between 4,000 and 5,000 (Diver and Wilson 2018, p. 5). Successful reproduction and larval presence is documented annually, but recruitment to the juvenile and adult life stages is also rare in the San Juan River subbasin. However, in 2018, more than 200 young-of-year razorback sucker were captured in the river (Upper Basin Program and San Juan Program 2019, p. 10), potentially because of habitat created during higher flow conditions in 2016 and 2017 and a lack of large-bodied predators. In 2019, 45 age-1 razorback sucker were found, documenting survival of some young-of-year through their first winter (Service 2019, p. 1). These two discoveries document the first signs of recruitment in the San Juan River basin. Regardless, the population is not self-sustaining, and 11,400 adult razorback sucker are stocked annually to support the population.

The fourth upper basin population is found in the Colorado and San Juan River inflow areas to Lake Powell. Although this population may functionally be an extension of the other three upper basin populations, its habitat conditions and the methods

used to monitor it are markedly different from the other three populations, which supports its consideration as a fourth population in the upper basin. Little is known about this population, as monitoring has only recently been expanded into its reaches. However, mark-recapture population estimates indicate there are persistent populations in both the San Juan and Colorado River arms, with approximately 2,000 (Pennock 2019, p. 14) and 2,184 (Service 2018a, p. 82) individuals, respectively, primarily comprising stocked adults. Reproduction is occurring annually, and larval razorback sucker have been captured in both inflow areas. Recruitment has yet to be confirmed, but untagged adults have been captured in Lake Powell. Lake Powell also supports populations of nonnative predatory fish species, including smallmouth bass, largemouth bass (*Micropterus salmoides*), striped bass, walleye, channel catfish, black crappie (*Pomoxis nigromaculatus*), and bluegill (*Lepomis macrochirus*), but inflow areas commonly have inflow- or wind-driven turbidity and inundated terrestrial vegetation, which may offer protection for razorback sucker from predation by nonnative fish species (Albrecht *et al.* 2017, pp. 510–511). The Upper Basin and San Juan Programs are continuing to explore the Lake Powell population, which is not actively managed like the other three river populations in the upper basin.

Summary of Current Condition in the Upper Basin—Four populations of razorback sucker occur in the upper basin. The Upper Basin and San Juan Programs' conservation and management actions have maintained and improved resource conditions for three of the four populations in the upper basin over the last 20 years. The SSA assessed the Green River as having medium condition relative to other populations and the three remaining upper basin populations to be in low condition. Populations of stocked adults use fish passage facilities to increase and expand through all available habitat. Successful reproduction, as evidenced by the collection of wild-produced larvae, is common in all populations. Signs of survival to later life stages are increasing, but have not reached levels of self-sustainability. Razorback sucker populations in the upper basin rely on management actions to maintain resiliency.

The Lower Basin—Dams on the mainstem of large rivers that provide water storage and hydropower dramatically altered the aquatic habitat in the lower Colorado River, such that these dams now define the boundaries of the razorback sucker populations in the lower basin. Three of the four lower basin populations generally have high-quality habitat, water quality, and temperature, and adequate food for razorback sucker. The reservoirs provide suitable habitat for razorback sucker, and the largest populations ever documented occurred in these reservoirs after filling. There are few natural barriers to movement within these populations, but connectivity among populations across the dams depends on management actions. Flows are heavily managed in the lower basin, with the dams reducing spring peak flows and providing stable downstream flows year-round, so there are few natural flows. Due to dam management of flows, variable flows are not available in the lower basin, which are essential to connect off-channel floodplains in the upper basin. Despite the presence of nonnative predatory fish, the reservoirs behind the dams provide suitable nursery habitat for juvenile razorback sucker that supports recruitment in Lake Mead.

As in the upper basin, predation of razorback sucker by nonnative fish is a significant stressor in the lower basin that influences the resiliency of the populations. Over 20 nonnative fish species occupy razorback sucker habitat, and all the lower basin mainstem reservoirs have populations of bluegill, striped bass, smallmouth bass, and largemouth bass that are managed as sport fisheries. Both striped bass and flathead catfish easily consume all life stages of razorback sucker, including large adults, so are especially detrimental to population recruitment. Flathead catfish have established populations in Lake Havasu, downstream of Parker Dam and in the Gila River subbasin. These predatory nonnative fish species have largely eliminated recruitment to the adult life stage in all lower basin populations except Lake Mead. The Lake Mead population is the only population that demonstrates sufficient recruitment, to a level that it is self-sustaining that does not require stocking. Managers hypothesize that portions of Lake Mead have physical conditions (vegetative cover and high turbidity) that provide some cover from site-feeding predatory nonnative fishes, and that this cover has led to a low level of recruitment that is sustaining this population at its current population level.

The LCR–MSCP oversees management actions to support razorback sucker in the Colorado River mainstem in the lower basin. Management focuses primarily on capturing and raising wild-produced larvae to an adult size in protected environments for stocking, creating, and managing predator-free off-channel habitats, and monitoring populations. Nonnative fish are not actively controlled in the lower basin, except in the Grand Canyon, where they are managed by the Glen Canyon Dam Adaptive Management Program. Many of the nonnative species are valuable sport fish managed by State wildlife agencies.

LCR–MSCP produces annual mark-recapture population estimates for all razorback sucker populations in its geographic scope. The Lake Mead population, though large during the initial filling of the reservoir, has declined to approximately 300 adults (LCR–MSCP 2019, p. 48). Ten years of population estimates document that the population is stable, but small. Reproduction and natural recruitment have been documented annually since the 1990s in turbid inflow areas, making Lake Mead home to the only self-sustaining razorback sucker population in either basin. Cover, in the form of turbidity and submerged vegetation, may explain why recruitment to the adult life stage occurs in Lake Mead, despite the presence of many nonnative predatory fish species.

Lake Mohave remains an important genetic refuge for razorback sucker, annually providing wild-spawned larvae for reintroduction efforts across the lower basin. Recent genetic studies document the persistence of high levels of genetic diversity in both wild and stocked individuals. The population was documented to exceed 60,000 individuals in the 1980s, but declined to less than 250 wild individuals in 2011. Currently, the population is estimated at several thousand hatchery-raised and stocked adults. Reproduction and larval presence is documented annually. Recruitment to the adult life stage has not been documented in this population, and is unlikely due to high rates of predation. Each year, wild larvae are captured, raised in hatcheries, and reintroduced at sizes larger than can be consumed by most nonnative fish species. Reintroduction occurs annually, but the number of reintroduced adults varies.

Razorback sucker were extirpated from the Colorado River between Davis and Parker Dams, including Lake Havasu. Reintroduction has established a population of approximately 5,000 adults, and the population is maintained through continual stocking. Spawning and larval presence occur annually. Recruitment to the adult life stage has not been documented in this

population and is unlikely due to high rates of predation.

In the Colorado River downstream of Parker Dam, razorback sucker are augmented annually. Survival is low, making population estimation difficult, but the population is currently estimated to be in the hundreds (LCR–MSCP 2019, p. 48). Some reproduction is seen, but at low levels. No evidence of natural recruitment to any life stage has been documented. This population was assessed to be in extirpated condition and, therefore, is not counted in the seven established populations.

Summary of the Lower Basin—There are currently three extant populations of razorback sucker in the lower basin. The LCR–MSCP's conservation and management actions continue to reintroduce razorback sucker and actively develop off-channel habitat. The Lake Mead population is small, persistent, and the only self-sustaining population of the species. The SSA rated the population condition as high relative to other populations. Populations of reintroduced adults in Lake Mohave and Lake Havasu are maintained through stocking. The SSA rated both populations as in low condition. The SSA rated the population below Parker Dam as in extirpated condition, but recent population estimates indicate it may be in the hundreds. Successful reproduction and larval recruitment are common in three of the four populations, with minimal larval production in the population below Parker Dam. Razorback sucker populations in the lower basin rely on management actions to be persistent.

Summary of Current Condition—The razorback sucker has many traits that enable individuals to be resilient in the face of stochasticity, including a long lifespan, high reproductive potential, flexibility in habitat conditions, adaptation to a wide variety of water-quality conditions, flow and thermal regimes, and a variable omnivorous diet. Although individual adult razorback sucker are persistent, seven of the eight populations are maintained through stocking. Overall, there is one population rated in high condition, one in medium condition, five in low condition, and one in extirpated condition. Only one population, the Lake Mead population, exhibits natural recruitment and stability of the population. The overall status of each population depends on ongoing management actions, such as population augmentation and the removal of nonnative predatory fish species, in order to maintain resiliency.

Redundancy for razorback sucker is currently provided by seven established populations. Further, the expansive distribution of each population, with individuals distributed and established in multiple locations across wide areas, also provides redundancy to help reduce risk associated with catastrophic events, such as widespread wildfire and extended drought. Due to this widespread distribution, existing populations are likely to survive localized and even regional catastrophic events. Representation is sufficient in terms of genetic diversity and genetic relatedness, as genetic diversity has been maintained through augmentation. Ecological representation is demonstrated by the species exhibiting a high degree of plasticity by inhabiting both lentic and lotic habitats. However, the lack of natural recruitment may reduce levels of genetic diversity for the species.

Future Condition

We predicted the resiliency, redundancy, and representation of the razorback sucker under five plausible future scenarios, 30 years into the future, based on various levels of active conservation actions. For the purposes of our analysis in the SSA, we also considered a 100 year timeframe to evaluate whether threats could increase or decrease, but the 100-year timeframe was not considered as a foreseeable future for the finding in this proposed rule. The future scenarios we evaluated are summarized below and are discussed in greater detail in the SSA report (Service 2018a, pp. 104–118). The future scenarios range from a reduction in conservation actions to an increase and improvement in the effectiveness of conservation actions. We selected the 30-year timeframe because it accounts for approximately three generations of razorback sucker (time to sexual maturity) and was a timeframe with sufficient certainty to anticipate the effects of stressors.

Scenario 1 of the SSA describes a reduction in recovery and conservation actions for razorback sucker to minimal levels due to funding reductions or the expiration of recovery programs. Scenario 2 of the SSA describes a reduction in the effectiveness of stocking and reintroduction efforts, which is currently a key management tool supporting most populations. Scenarios 3, 4, and 5 of the SSA show continued management actions under various levels of effectiveness. Scenario 3 represents a continuation of current management actions. Scenarios 4 and 5 assume increases in the effectiveness of management actions based on more effective flow and nursery habitat management or the development of novel techniques to control nonnative predators.

Under Scenario 1, conditions would likely severely degrade in 30 years in the upper basin, primarily because of the assumed reduction in conservation activities that would occur in absence of the Upper Basin and San Juan Programs, likely resulting in all four populations reaching an extirpated condition in the foreseeable future. Under Scenario 1, conditions would likely remain constant in the Lower Basin because the LCR;MSCP has committed conservation actions under their consultation requirements under section 7 of the Act and Habitat Conservation Plan until 2055. The most dramatic declines in condition are likely under Scenario 2 under which most populations would decline to an extirpated condition, underscoring the importance of stocking and reintroduction programs to the species across the basin. In scenarios 1 and 2, both resiliency and redundancy are likely to decline in all populations. Scenario 2 predicts a decline in representation because genetics are currently managed and distributed using stocking and reintroduction programs. Scenarios 3, 4, and 5 all predict increasing resource and population conditions because conservation actions are assumed to continue to improve the resiliency of populations, differentiated by the effectiveness of said actions. Scenario 3 predicts restoration of all upper basin populations and the Lake Mohave population to a medium condition based on continued implementation of management actions, which support resiliency, redundancy and representation. Under scenario 3, populations are likely to continue to expand, but resiliency of the species would require ongoing management actions. Scenario 4 predicts an increase in effectiveness of management activities to support wild recruitment, including the management of additional nursery habitat in the upper basin and additional off-channel habitat in the lower basin. Under scenario 4, all populations are predicted to reach high or moderate condition, except for the population below Parker Dam, which would likely remain in low condition. Under scenario 5, which assumes availability of a novel tool to address nonnative fish, most populations would be expected to reach high condition. In scenarios 3, 4, and 5, improvements in the upper basin populations are likely larger than those in the lower basin as

a broader suite of actions are occurring in the upper basin.

The SSA report (Service 2018a, entire) contains a more detailed discussion of our evaluation of the biological status of razorback sucker and the influences that may affect its continued existence. Our evaluations are based upon the best available scientific and commercial data.

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have not only analyzed individual effects on the species, but we have also analyzed their potential cumulative effects. We incorporate the cumulative effects into our SSA analysis when we characterize the current and future condition of the species. To assess the current and future condition of the species, we undertake an iterative analysis that encompasses and incorporates the threats individually and then accumulates and evaluates the effects of all the factors that may be influencing the species, 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 species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative effects analysis.

Determination of Razorback Sucker Status

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 ''endangered species'' or ''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 a species meets the definition of ''endangered species'' or ''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.

Status Throughout All of Its Range

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the razorback sucker. Threats to the razorback sucker include changes in flow regime and habitat connectivity (which could be affected by climate change in the long term) (Factor A), and predation and competition with nonnative fish species (Factor C) (Service 2018a, pp. 25–42, 98–105). There is no evidence that overutilization (Factor B) of razorback sucker, disease (Factor C), or other natural and manmade factors affecting the species (Factor E) are occurring. Existing regulatory mechanisms (Factor D) are discussed below. We evaluated each potential stressor, including its source, affected resources, exposure, immediacy, geographic scope, magnitude, and impacts on individuals and populations, and our level of certainty regarding this information, to determine which stressors were likely to be drivers of the species' current condition (Service 2018a, pp. 25–42).

We have also analyzed potential cumulative effects of stressors, such as low river flows and warm water temperatures that may act cumulatively to increase predation by nonnative predators. The SSA framework considers the presence of the factors influencing the species, including threats and conservation efforts and to what degree they collectively influence risk to the entire species at the current time and in the future.

Our analysis found that the primary drivers for the razorback sucker's current and future condition in the wild are lack of access to rearing habitat in the upper basin and persistent populations of predatory nonnative fish species, which, together, prevent natural recruitment from occurring at a population scale in both basins. We summarize these stressors below, with more detail provided in the SSA report (Service 2018a, pp. 27–42).

Access to nursery habitat—The presence and operation of large dams can reduce spring peak flows and inter- and intra-annual flow variability, needed by razorback sucker larvae and juveniles as rearing habitat. Historical dam operations did not always provide river flow conditions that supported razorback sucker, but recent modifications to operations have improved conditions. Current flow recommendations at upper basin dams (including Flaming Gorge [Green River subbasin], the Aspinall Unit [Colorado River subbasin], and Navajo Dam [San Juan River subbasin]) now promote inter- and intra-annual variability. In addition, Flaming Gorge Reservoir operations have incorporated experimental strategies to use spring peak flows to push larval razorback sucker into managed off-channel floodplains. These larval-triggered dam operations have resulted in the first consistent signs of first-year survival in the upper basin. For recruitment to the adult life stage to occur at a significant scale, more managed floodplains may be needed to connect to the river more regularly in the Green River (and potentially in the other) subbasins. Recent high, channel altering flows in the San Juan River, followed by low flows that provided in-river juvenile backwater habitat produced one year-class of naturally recruited juveniles. Similar patterns would need to occur on a more regular basis to produce enough juveniles to replace adults lost through mortality. Future conditions of river flow and temperature are uncertain because conditions are shaped by regional climatic patterns and water availability.

Predation—Predation and competition by nonnative fish species are stressors to razorback sucker in both the upper and lower basins by reducing recruitment to adult life stages. Juvenile razorback sucker are most vulnerable to predation from nonnative fish species during the first few years of life. In the lower basin, populations that co-occur with striped bass and flathead catfish are vulnerable even as adults. Nonnative fish can also compete for resources with all life stages of razorback sucker. The razorback sucker evolved in an environment relatively free of predators and competitors. It is ill-adapted to living with the many nonnative fish that have been introduced into the Colorado River basin because it is a soft-rayed fish with no defense mechanisms for protection from predators.

Predation from nonnative fish species, particularly smallmouth bass in the upper basin, and striped bass and flathead catfish in the lower basin, is actively reducing the viability of razorback sucker. All upper basin razorback sucker populations have established nonnative predator populations; however, predation pressure is considered low in the San Juan River. All lower basin populations are dominated by nonnative predators. Only Lake Mead remains unmanaged and naturally recruiting. Management actions have restored razorback sucker populations to much of their historical habitat and are necessary to continue to support the species.

Regulatory mechanisms—Regulatory mechanisms (Factor D) and other

management efforts benefit the razorback sucker. Most habitat resources affecting razorback sucker, such as river flow regimes, are strictly regulated through Federal, State, and Tribal mechanisms. The razorback sucker is widely distributed across the upper basin, occupying areas surrounded by both private and public land, but many of the essential habitats (*e.g.,* floodplain wetlands and nursery areas) are largely protected by land use management plans or other mechanisms associated with Federal, State, and Tribal land ownership. Releases from large dams, primarily operated by the U.S. Bureau of Reclamation, are now operated to promote river function and connect fish habitat. These revised dam operations have been vetted through the National Environmental Policy Act process and are described in the records of decision (RODs) for Flaming Gorge (U.S. Department of the Interior 2006), the Aspinall Unit (U.S. Department of the Interior 2012), and Navajo dams (U.S. Department of the Interior 2005).

The Upper Basin and San Juan Programs coordinate and implement the majority of management actions for the upper basin populations, while the LCR-MSCP undertakes management actions for the lower Colorado River basin. These programs are considered regulatory mechanisms because they are largely federally funded, are guided by statute, are renewed on a periodic basis by acts of Congress, and provide compliance under the Act for water development projects.

Commitment to management actions for the benefit of razorback sucker is strong among the various partnerships; nevertheless, uncertainty of continued implementation in the upper basin does exist. For example, the cooperative agreement establishing the Upper Basin and San Juan Programs expires in 2023. The partners continue to discuss how the programs will be continued post 2023, with strong agreement that continuation is essential for all parties. Elimination of those two programs would introduce severe uncertainty about continued implementation of important management actions for razorback sucker in the upper basin. In the lower basin, the habitat conservation plan that created the LCR-MSCP is the legally binding mechanism that provides more certainty for razorback sucker conservation actions through 2055.

The Upper Basin and San Juan Programs and LCR-MSCP are key regulatory mechanisms that shape the current and future condition of razorback sucker. The Upper Basin and San Juan Programs implement management actions that benefit all resource needs of the razorback sucker, including flow and habitat management, nonnative fish removal, and stocking of adults. After coordination through the programs, the Service maintains stocking agreements with the states prohibiting the introduction of nonnative species that cause undue harm to endangered species populations. The States of Colorado, Utah, and Wyoming have enacted fishing regulations that encourage anglers to remove nonnative predatory species throughout the upper Colorado River basin. The LCR-MSCP develops off-channel, predator-free habitat and reintroduces adults. Although it is likely that all programs will continue to implement management actions, there is uncertainty regarding the status of the Upper Basin and San Juan Programs over the next 30 years. However, we believe there is strong, broad-based incentive to continue these collaborative programs, because they collectively provide regulatory compliance under the Act for the depletive effects associated with more than 2,500 water projects, which deplete an average of 3.8 million acre-feet per year.

We find that endangered species status is no longer appropriate for the razorback sucker because the species currently demonstrates sufficient individual and population resiliency, redundancy, representation across seven reproducing populations, four in the upper basin and three in the lower basin, supplemented by well-managed captive populations across the range, such that the potential extirpation of multiple populations is not likely to occur now or in the short term. The current resiliency of the relatively small, naturally recruiting Lake Mead population, in conjunction with the resiliency and redundancy afforded by management-based populations across both basins, decreases risk to the species from stochastic and catastrophic events. Wide-ranging adult populations, successful spawning, continued stocking and reintroduction programs, coupled with threat management programs provide resiliency and redundancy, which decrease the risks to the species. The risk of extinction is currently low, due to the presence of one recruiting wild population and six additional populations that are maintained by stocking from well-managed captive populations. Therefore, the species is not currently in danger of extinction. We, therefore, proceed with determining whether razorback sucker is likely to become endangered within the foreseeable future throughout all of its range (*i.e.,* meets the Act's definition of a threatened species).

We find that razorback sucker is likely to become an endangered species throughout all of its range within the foreseeable future. Due to nonnative predators that prevent nearly all natural recruitment of razorback sucker to the adult life stage in most habitats, the condition of the seven populations distributed across the upper and lower basins depends on management actions, such as stocking efforts, which are effective and ongoing. Management actions have ensured that stocked razorback sucker are migrating, spawning, and producing viable larvae in most populations. Signs of recruitment to the juvenile life stage are increasing, but are not yet sufficient for self-sustainability in most populations. Although the current risk of extinction is low, such that the species is not an endangered species, there is enough risk associated with the species' reliance on management actions and the potential loss of these important management actions such that the species is vulnerable. The primary management organization in the lower basin, LCR-MSCP, will continue through the foreseeable future considered in this rule (currently set to expire in 2055) ensuring conservation actions will continue in the lower basin to maintain populations in their current state. Reduction or elimination of ongoing management actions in the upper basin, which could occur after 2023, could slow or reverse the positive trajectory in the upper basin populations. Thus, after assessing the best available information, we determine that the razorback sucker is not currently in danger of extinction, but is likely to become in danger of extinction within the foreseeable future 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 in the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity* v. *Everson,* 2020 WL 437289 (D.D.C. Jan. 28, 2020) (*Center for Biological Diversity*), vacated the aspect of the 2014 Significant Portion of its Range Policy that provided that the Service does not undertake an analysis of significant portions of a species' range if the species warrants listing as threatened throughout all of its range. Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its

range—that is, whether there is any portion of the species' range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the ''significance'' question or the ''status'' question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

Following the court's holding in *Center for Biological Diversity,* we now consider whether there are any significant portions of the species' range where the species is in danger of extinction now (*i.e.,* endangered). In undertaking this analysis for the razorback sucker, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify any portions of the range where the species is endangered.

For the razorback sucker, we considered whether threats are geographically concentrated in any portion of the species' range at a biologically meaningful scale. We examined the following threats: Changes in flow regime and habitat connectivity (which could be affected by climate change in the long term) (Factor A), predation and competition with nonnative fish species (Factor C), overutilization (Factor B) of razorback sucker, disease (Factor C), or other natural and manmade factors affecting the species (Factor E), including cumulative effects. We determined that threats to the razorback sucker include changes in flow regime and habitat connectivity (which could be affected by climate change in the long term) (Factor A), and predation and competition with nonnative fish species (Factor C) (Service 2018a, pp. 25–42, 98–105). There is no evidence that overutilization (Factor B) of razorback sucker, disease (Factor C), or other natural and manmade factors affecting the species (Factor E) are occurring.

In the upper basin, large dams historically changed flow regimes, which altered water temperatures and reduced connectivity and access to rearing habitat needed by the razorback sucker. Currently, flow recommendations in the upper basin are providing access to rearing habitat in the form of off-channel wetlands and floodplains. In the lower basin, large dams created large on-channel reservoirs that supported large populations of wild razorback sucker before the introduction of nonnative fish species. Both the upper and lower basins now support large augmented populations of razorback sucker. Although in the future, regional climatic patterns and water availability could affect the river flows and water temperatures needed by the razorback sucker, flow regimes are currently not a threat to the species and there are no geographically concentrated changes to flow regimes operating at biologically meaningful scales, whether at a population level, across the upper or lower basins, or the species rangewide.

Across the upper and lower basins, the razorback sucker evolved in an environment relatively free of predators and competitors, and as a soft-rayed fish with no defense mechanisms against predation, it is ill-adapted to live with the many nonnative fish that were introduced into the Colorado River basin. By feeding on juvenile razorback sucker, and some adults in the lower basin, predatory, nonnative fish species reduce recruitment of the razorback sucker to adult life stages. Nonnative fish can also compete for resources with all life stages of razorback sucker. As a result, predation and competition by nonnative fish species are threats to the razorback sucker in both the upper and lower basins. All razorback sucker populations in the upper and lower basins have established populations of nonnative predators; however, predation pressure is considered low in the San Juan River in the upper basin, and only Lake Mead in the lower basin remains unmanaged and naturally recruiting. Although nonnative species are different, predation and competition by nonnative fish species occurs across both the upper and lower basins and there are no geographical concentrations of this threat across biologically meaningful scales, either at the population scale, across the upper and lower basins, or the species rangewide.

We found no concentration of threats in any portion of the range of the razorback sucker at a biologically meaningful scale. Thus, there are no portions of the species' range where the species has a different status from its rangewide status. Therefore, no portion of the species' range provides a basis for determining that the species is in danger of extinction in a significant portion of its range, and we determine that the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. This is consistent with the courts' holdings in *Desert Survivors* v. *Department of the Interior,* No. 16–cv–01165–JCS, 2018 WL 4053447 (N.D. Cal. Aug. 24, 2018), and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d, 946, 959 (D. Ariz. 2017).

Determination of Status

Our review of the best available scientific and commercial information indicates that the razorback sucker meets the definition of a threatened species. Therefore, we propose to reclassify the razorback sucker as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Proposed Rule Issued Under Section 4(d) of the Act

Background

Section 4(d) of the Act contains two sentences. The first sentence states that the ''Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation'' of species listed as threatened. The U.S. Supreme Court has noted that statutory language like ''necessary and advisable'' demonstrates a large degree of deference to the agency (see *Webster* v. *Doe,* 486 U.S. 592 (1988)). Conservation is defined in the Act to mean ''the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the Act] are no longer necessary.'' Additionally, the second sentence of section 4(d) of the Act states that the Secretary ''may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants.'' Thus, the combination of the two sentences of section 4(d) of the Act provide the Secretary with wide latitude of discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to us when adopting the prohibitions under section 9.

The courts have recognized the extent of the Secretary's discretion under this standard to develop rules that are appropriate for the conservation of a species. For example, courts have upheld rules developed under section 4(d) as a valid exercise of agency authority where they prohibited take of threatened wildlife, or include a limited taking prohibition (see *Alsea Valley Alliance* v. *Lautenbacher,* 2007 U.S. Dist. Lexis 60203 (D. Or. 2007); *Washington Environmental Council* v. *National Marine Fisheries Service,* 2002 U.S. Dist. Lexis 5432 (W.D. Wash. 2002)). Courts have also upheld 4(d) rules that do not address all of the

threats a species faces (see *State of Louisiana* v. *Verity,* 853 F.2d 322 (5th Cir. 1988)). As noted in the legislative history when the Act was initially enacted, ''once an animal is on the threatened list, the Secretary has an almost infinite number of options available to him with regard to the permitted activities for those species. He may, for example, permit taking, but not importation of such species, or he may choose to forbid both taking and importation but allow the transportation of such species'' (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

Exercising this authority under section 4(d), we have developed a proposed rule that is designed to address the razorback sucker's specific threats and conservation needs. Although the statute does not require us to make a ''necessary and advisable'' finding with respect to the adoption of specific prohibitions under section 9, we find that this rule as a whole satisfies the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the razorback sucker. As discussed in the Summary of Biological Status and Threats section, we have concluded that the razorback sucker is likely to become in danger of extinction within the foreseeable future primarily due to changes to water flow and predatory, nonnative fish species. The provisions of this proposed 4(d) rule would promote the conservation of the razorback sucker by providing continued protection from take and to facilitate the expansion of the species' range by increasing flexibility in management activities. The provisions of this rule are one of many tools that we would use to promote the conservation of the razorback sucker. This proposed 4(d) rule would apply only if and when we make final the reclassification of the razorback sucker as a threatened species.

Provisions of the Proposed 4(d) Rule

This proposed 4(d) rule would provide for the conservation of the razorback sucker by prohibiting the following activities, except as otherwise authorized or permitted: Importing or exporting; possession and other acts with unlawfully taken specimens; delivering, receiving, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce. This proposed 4(d) rule includes actions to facilitate conservation and management of razorback sucker where they currently occur, and may occur in the future, by eliminating the Act's take prohibition for certain activities. These activities are intended to encourage support for the conservation of razorback sucker.

Under the Act, ''take'' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Some of these provisions have been further defined in regulation at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Under this proposed 4(d) rule, take will continue to be prohibited, except for the following forms of take that would be excepted under the Act:

- Take resulting from population restoration efforts including captive-breeding, stocking, and reintroduction of individuals;
- Take resulting from display of razorback sucker for educational purposes;
- Take resulting from creating and managing nursery habitat for razorback sucker;
- Take resulting from the removal or suppression of nonnative fish species;
- Take resulting from catch-and-release angling activities associated with razorback sucker in accordance with all applicable laws, including incidental take from nontargeted angling in critical habitat and take from targeted angling for razorback sucker in any newly established areas; and
- Take associated with chemical treatments in support of the recovery of razorback sucker.

Captive-Breeding, Reintroduction, and Stocking

Robust hatchery and reestablishment programs have been developed as a result of catastrophic historical declines in wild populations and are essential management tools used by agencies across the Colorado River basin. Population restoration efforts provide the flexibility to perform supplemental stocking into existing populations or reintroduction of individuals to extirpated areas. Stocking hatchery-reared razorback sucker and reintroducing wild-spawned larvae as adults too large for predation are important management actions supporting the managed viability of the species. Introducing individuals into new areas can provide increased redundancy and decreased risk to catastrophic events by expanding the range of the species. Introducing individuals into wild populations can substitute for resiliency for extant populations by potentially offsetting population declines or increasing genetic diversity. Currently, the genetic diversity of razorback sucker exists in captive broodstock and wild-spawned larvae in Lake Mohave. Broodstock are maintained at multiple locations across the upper and lower basin.

The process of establishing or supplementing broodstock or enhancing populations by reintroducing wild-collected larvae as adults can require take in the form of collection of wild individuals of various life stages. Furthermore, the long-term care and maintenance of broodstock or hatchery stock can result in take, including take related to disease, parasites, genetic assessment, and management of captive populations, and natural mortality of individuals existing in broodstock or refuge populations. The process of culturing and stocking individuals can also result in take via hatchery methods or incidental mortality of stocked individuals.

This proposed 4(d) rule describes captive-breeding, stocking, and reintroduction of razorback sucker excepted from take as any activity undertaken to expand the range of razorback sucker or to supplement existing wild populations. Under this proposed 4(d) rule, take resulting from captive-breeding, stocking, and reintroduction for razorback sucker by qualified personnel would not be prohibited as long as reasonable care is practiced to minimize the effects of such taking. Qualified personnel are full-time fish biologists or aquatic resources managers employed by any of the Colorado River Basin State or Tribal wildlife agencies, the Department of the Interior bureau offices located within the Colorado River basin, or fish biologists or aquatic resource managers employed by a private consulting firm. Reasonable care should include, but is not limited to: (1) Ensuring that the number of individuals removed minimally impacts extant wild populations; (2) acting in accordance with the Service's Policy Regarding Controlled Propagation of Species Listed Under the Endangered Species Act (65 FR 56916, September 20, 2000) and all Federal, State, and Tribal laws and regulations; (3) implementing methods that result in the least harm, injury, or death to razorback sucker as feasible; (4) preserving specific genetic groupings of razorback sucker as defined by the best available science to maintain the genetic diversity of the species; and (5) ensuring no detrimental impacts to existing razorback sucker populations from disease, parasites, or genetic drift. Any stocking of razorback sucker must be approved by the Service.

Exhibitions of Captive-Bred Razorback Sucker

Live fish exhibits provide a unique opportunity for the public to see and interact with rare native species. Exhibits are currently distributed throughout the basin in educational classrooms and public buildings holding hatchery-propagated fish. In cooperation with the Service, an educational message shall be presented with each animal and shall include the following minimal information: Common and scientific names, historical and current distribution, Endangered Species Act listing status, and a brief history of recovery. The long-term care and maintenance of live individuals in exhibits can result in take, including take related to disease, parasites, and natural mortality of individuals existing in captivity. Wild-caught razorback sucker are not permitted to be used for this purpose. Fish used in exhibitions may not be released into natural waterways without written permission from the Service defining time, location, and procedures to be used during release. Any releases must be in compliance with all Federal, State, and Tribal laws and regulations. Reasonable care must be taken to reduce take including, but not limited to: (a) Holding razorback sucker in aquaria of appropriate size for the life stage on exhibit (no less than 10 gallons (37.8 L)); and (b) providing routine care by individuals trained and knowledgeable in fish and aquarium care and the management of parasites and disease.

Creation and Management of Nursery Habitat

Floodplain wetlands and other habitats support growth of larval and juvenile razorback sucker (see Summary of Biological Status and Threats, above). Successful floodplain management for razorback sucker can require: (a) Flow management that provides floodplain connection when larval razorback sucker are present in the system; (b) floodplains that are retrofitted with water control structures that restrict entry of large-bodied fish and allow managers to fill and drain the habitat at the beginning and end of the growing season, respectively; (c) supplemental water to freshen floodplain water quality through the summer; and (d) periodic monitoring of fish communities in the wetland to determine species composition. Take of razorback sucker can occur when the floodplains are drained and razorback sucker are inadvertently left in the floodplain or when water quality or other physical habitat conditions become insufficient to support the species. Incidental take may also occur when individuals of the species are handled, either during population sampling or draining of the wetland.

Currently, management of floodplain wetlands occurs at multiple locations in the Green River basin and in one location along the Colorado River, near Moab, Utah. Creation of floodplain habitat is in development in the San Juan River basin. In the lower basin, razorback sucker are common in off-channel pond habitat. Both the floodplain and pond habitats are constructed and managed to keep large-bodied nonnative predators out. New construction designs or management techniques, as available and feasible, may also need to be implemented in the future.

This proposed 4(d) rule describes creation and management of nursery habitat excepted from take prohibitions as any action with the primary or secondary purpose of enhancing or providing nursery habitat for razorback sucker, and that is approved in writing by the Service for that purpose.

Under this proposed 4(d) rule, take resulting from actions to create or manage nursery habitats to benefit razorback sucker by qualified personnel would not be prohibited as long as reasonable care is practiced to minimize the effects of such taking. Reasonable care may include, but is not limited to: (1) Performance of management treatments at times and locations that reduce the impacts to razorback sucker; (2) compliance with all Federal, State, and Tribal regulations for construction in wetland habitats; (3) attention to water quality conditions while razorback sucker are thought to be present; and (4) performance of robust salvage efforts to remove any razorback sucker before draining occurs. Whenever possible, razorback sucker that are salvaged should be moved to a location that supports recovery of the species.

Nonnative Fish Removal

Control of nonnative fishes is vital for the continued recovery of razorback sucker because predatory, nonnative fishes are a principal threat to razorback sucker (see Summary of Biological Status and Threats, above). The goal of removing nonnative fishes is to reduce predation and competition pressure on razorback sucker to such a level that it results in increasing razorback sucker survival, recruitment, and access to resources. During the course of removing nonnative fishes, take of razorback sucker may occur from incidental captures resulting in capture, handling, injury, or possible mortality. However, nonnative removal activities in razorback sucker habitats are designed to be selective, allowing for the removal of predatory, nonnative fish while razorback sucker are returned safely to the river. Therefore, if nonnative fish removal is performed under deliberate, well-designed programs, the benefits to razorback sucker can greatly outweigh losses.

Currently, active nonnative fish removal is widespread in the upper basin, but is less common in the lower basin. Control of nonnative fishes is conducted by qualified personnel in the upper basin via mechanical removal using boat-mounted electrofishing, nets, and seines, primarily focusing on removal of smallmouth bass, northern pike (*Esox lucius*), and walleye (*Sander vitreus*). Removal of nonnative fishes in the upper basin is performed under strict standardized protocols to limit impacts to razorback sucker. In the lower basin, nonnative fish actions primarily focus on preventing establishment of new species (such as removal of green sunfish below Glen Canyon Dam) and controlling populations of trout in tributary habitats (such as removal of brown trout in Bright Angel Creek). New techniques, as available and feasible, may also need to be implemented in the future.

This proposed 4(d) rule describes nonnative fish removal excepted from take prohibitions as any action with the primary or secondary purpose of mechanically removing nonnative fishes that compete with, predate, or degrade the habitat of razorback sucker, and that is approved in writing by the Service for that purpose. These methods include mechanical removal within occupied razorback sucker habitats, including, but not limited to, electrofishing, seining, netting, and angling, or other ecosystem modifications such as altered flow regimes or habitat modifications. All methods must be conducted by qualified personnel and equipment used in compliance with applicable Federal, State, and Tribal regulations.

Under this proposed 4(d) rule, incidental take resulting from actions implementing nonnative fish control activities to benefit razorback sucker would not be prohibited as long as reasonable care is practiced to minimize the effects of such taking. Reasonable care may include, but is not limited to: (1) Performing removal actions at times and locations that reduce the impacts to razorback sucker; (2) complying with all applicable regulations and following principles of responsible removal; and (3) judiciously using methods and tools to reduce the likelihood that razorback

sucker are captured, injured, or die in the removal process. Whenever possible, razorback sucker that are caught alive as part of nonnative fish removal should be returned to their capture location as quickly as possible.

Catch-and-Release Angling of Razorback Sucker

Recreational angling is an important consideration for management of all fisheries, as recreational angling is the primary mechanism by which the public interacts with fishes. Furthermore, angling regulations are an important communication tool. While the razorback sucker is not currently a species that is prized for its recreational or commercial value, the species is a large-bodied, catchable-sized fish that could offer potential recreational value in certain situations. Conservation value from public support for razorback sucker could arise through newly established fishing locations and public engagement with this species. Furthermore, anglers target species that co-occur with razorback sucker at some locations. As a result, otherwise legal angling activity in razorback sucker habitats could result in the unintentional catch of razorback sucker by the angling public. Catch-and-release angling, both intentional and incidental, can result in take of razorback sucker through handling, injury, and potential mortality. However, the conservation support that angling provides can outweigh losses to razorback sucker, if the angling program is designed appropriately.

Currently, State angling regulations require the release of all incidental catches of razorback sucker and do not allow anglers to target the species. Therefore, current angling regulations for razorback sucker by the States of Arizona, California, Colorado, New Mexico, Nevada, and Utah demonstrate a willingness to enact appropriate regulations for the protection of the razorback sucker. It is important to continue to protect razorback sucker from intentional angling pressure in critical habitat to support recovery of the species. Supporting recreational fishing access to these areas for species other than razorback sucker is an important economic consideration for State and Tribal entities. We propose to allow take of razorback sucker from angling activities that are in accordance with State and Tribal fishing regulations in razorback sucker critical habitat, but that do not target razorback sucker. That is, take associated with incidental catch-and-release of razorback sucker in the core populations would not be prohibited. Reasonable consideration by the States and Tribes for incidental catch of razorback sucker in critical habitat includes: (1) Regulating tactics to minimize potential injury and death to razorback sucker if caught; (2) communicating the potential for catching razorback sucker in these areas; and (3) promoting the importance of the populations across the Colorado River basin.

Outside of critical habitat, we foresee that Federal, State, or Tribal governments may want to establish a new recovery location where razorback sucker could be targeted for catch-and-release angling or a new location without recovery value, where the sole purpose is recreational angling for razorback sucker. Newly established locations could offer a genetic refuge for core populations of razorback sucker, provide a location for hatchery-reared fish (see *Captive-Breeding, Stocking, and Reintroduction,* above), and offer the public a chance to interact with the species in the wild. Therefore, we propose to allow take of razorback sucker from catch-and-release angling activities that target razorback sucker and are in accordance with State and Tribal fishing regulations in areas outside of critical habitat.

Sport fishing for razorback sucker would be allowed only through the 4(d) rule and subsequent State or Tribal regulations created in collaboration with the Service. This rule would allow recreational catch-and-release fishing of razorback sucker in specified waters outside of critical habitat. Management as a recreational species would be conducted after completion of, and consistent with the goals within, a revised recovery plan for the species. The principal effect of this 4(d) rule would be to allow take in accordance with fishing regulations enacted by States or Tribes, in collaboration with the Service.

Recreational opportunities may be developed by the States and Tribes in new waters following careful consideration of the locations and impacts to the species. Reasonable consideration for establishing new recreational locations for razorback sucker include, but are not limited to: (1) Carefully evaluating each water body and determining whether the water body can sustain angling; (2) ensuring the population does not detrimentally impact populations of razorback sucker through such factors as disease or genetic drift; (3) ensuring adequate availability of razorback sucker to support angling; and (4) monitoring to ensure there are no detrimental effects to the population from angling. If monitoring indicates that angling has a negative effect on the conservation of razorback sucker in the opinion of the Service, the fishing regulations must be amended or the fishery could be closed by the appropriate State.

Chemical Treatments Supporting Razorback Sucker

Chemical treatments of water bodies are an important fisheries management tool because they are the principal method used to remove all fishes from a defined area. That is, chemical treatments provide more certainty of complete removal than other methods, such as mechanical removal. Therefore, chemical treatments are used for a variety of restoration and conservation purposes, such as preparing areas for stocking efforts, preventing nonnative fishes from colonizing downstream areas, and resetting locations after failed management efforts. Chemical treatments of water bodies could take razorback sucker if individuals reside in the locations that are treated and cannot be salvaged completely prior to treatment. However, the overall benefit of conservation actions implemented using chemical treatment can outweigh the losses of razorback sucker, if reasonable care and planning are taken prior to treatments.

Chemical piscicides (chemicals that are poisonous to fish) have been used in the upper and lower basin to remove upstream sources of nonnative fishes in support of razorback sucker. For example, Red Fleet Reservoir (Green River, Utah) was treated by the Utah Division of Wildlife Resources to remove walleye that were escaping downstream, and a slough downstream of Glen Canyon Dam (Colorado River, Arizona) was treated by the National Park Service to remove green sunfish. At Red Fleet Reservoir, chemical treatment also provided the Utah Division of Wildlife Resources with the ability to establish a new fish community that supported angling interests and provided greater compatibility with downstream conservation efforts.

Chemical treatments could support a variety of activities to assist in the conservation of razorback sucker, including certain other actions described in this proposed 4(d) rule. For example, chemical treatments could be used prior to introducing razorback sucker through stocking. Nonnative fishes can also be removed using chemical treatments, providing a faster and more complete removal than mechanical removal. Furthermore, chemical treatments offer the ability to fully restore a location after a failed introduction effort. For example, if razorback sucker were stocked into a

new area, but did not successfully establish, landowners may want to restore this location for another purpose.

Chemical treatments would be allowed under this proposed 4(d) rule. Necessary precautions and planning should be applied to avoid impacts to razorback sucker. For example, treatments upstream of occupied razorback sucker habitats should plan for unintended consequences (*e.g.,* dispersal of piscicide beyond treatment boundaries). Chemical treatments that take place in locations where razorback sucker occur, or may occur, must take place only after a robust salvage effort takes place to remove razorback sucker in the area. Any chemical treatment that takes place in an area where razorback sucker may reside would need written approval from the Service, but treatments of unoccupied habitat would not need to be approved. Once the location of a chemical treatment is approved in writing by the Service, the take of razorback sucker by qualified personnel associated with performing a chemical treatment would not be regulated by the Service.

Under this proposed 4(d) rule, take resulting from actions implementing chemical treatments to benefit razorback sucker would not be prohibited as long as reasonable care is practiced to minimize the effects of such taking. Reasonable care may include, but is not limited to: (1) Performance of treatments at times and locations that reduce the impacts to razorback sucker; (2) compliance with all Federal, State, and Tribal regulations for the use of fish toxicants and piscicides; (3) adherence to all protocols to limit the potential for fish toxicants and piscicides travelling beyond treatment boundaries; and (4) performance of robust salvage efforts to remove any razorback sucker in the treatment area. Whenever possible, razorback sucker that are salvaged should be moved to a location that supports recovery of the species.

Reporting and Disposal of Razorback Sucker

Under the proposed 4(d) rule, if razorback sucker are killed during actions described in the 4(d) rule, the Service must be notified of the death and may request to take possession of the animal. Notification should be given to the appropriate Service Regional Law Enforcement Office or associated management office. Information on the offices to contact is set forth under Proposed Regulation Promulgation, below. Law enforcement offices must be notified within 72 hours of the death, unless special conditions warrant an extension. The Service may allow additional reasonable time for reporting if access to these offices is limited due to closure or if the activity was conducted in an area without sufficient communication access.

Permits

We may issue permits to carry out otherwise prohibited activities, including those described above, involving threatened wildlife as necessary in light of any finalized 4(d) rule. Regulations governing permits are codified at 50 CFR 17.32. With regard to threatened wildlife, a permit may be issued for the following purposes: Scientific purposes, to enhance propagation or survival, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes consistent with the purposes of the Act. There are also certain statutory exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

This proposed 4(d) rule would not impact existing or future permits issued by the Service for take of razorback sucker. Any person with a valid permit issued by the Service under § 17.22 or § 17.32 may take razorback sucker, subject to all take limitations and other special terms and conditions of the permit.

The Service recognizes the special and unique relationship with our State natural resource agency partners in contributing to conservation of listed species. State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened, and candidate species of wildlife and plants. State agencies, because of their authorities and their close working relationships with local governments and landowners, are in a unique position to assist the Service in implementing all aspects of the Act. In this regard, section 6 of the Act provides that the Service shall cooperate to the maximum extent practicable with the States in carrying out programs authorized by the Act. Therefore, any qualified employee or agent of a State conservation agency that is a party to a cooperative agreement with the Service in accordance with section 6(c) of the Act, who is designated by his or her agency for such purposes, would be able to conduct activities designed to conserve razorback sucker that may result in otherwise prohibited take without additional authorization.

Proposed 4(d) Rule

We have determined that the actions and activities that would be allowed under this proposed 4(d) rule, while they may cause some level of harm to individual razorback sucker, would not negatively affect efforts to conserve and recover razorback sucker, and would facilitate these efforts by increasing educational opportunities and public support for the conservation of razorback sucker and by providing more efficient implementation of recovery actions. This proposed 4(d) rule would not be made final until we have reviewed and fully considered comments from the public and unless and until we make final a rule to reclassify the species as threatened.

Nothing in this proposed 4(d) rule would change in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or the ability of the Service to enter into partnerships for the management and protection of the razorback sucker. However, interagency cooperation may be further streamlined through planned programmatic consultations for the species between Federal agencies and the Service, where appropriate. We ask the public, particularly State and Tribal agencies and other interested stakeholders that may be affected by the proposed 4(d) rule, to provide comments and suggestions regarding additional guidance and methods that the Service could provide or use, respectively, to streamline the implementation of this proposed 4(d) rule (see Information Requested, above).

Required Determinations

Clarity of This Proposed Rule

We are required by Executive Orders 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:

(a) Be logically organized;

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

(c) Use clear language rather than jargon;

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

(e) 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.

National Environmental Policy Act

We determined that we do not need to prepare an environmental assessment or an environmental impact statement, as defined under the authority of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), in connection with regulations adopted pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). We also determine that 4(d) rules that accompany regulations adopted pursuant to section 4(a) of the Act are not subject to the National Environmental Policy Act.

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), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial 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. We will coordinate with Tribes in the range of the razorback sucker and request their input on this proposed rule.

References Cited

A complete list of references cited in this rulemaking is available on the internet at *http://www.regulations.gov* at Docket No. FWS–R6–ES–2020–0057, and upon request from the Upper Colorado River Endangered Fish Recovery Program Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Service's Upper Colorado River Endangered Fish Recovery Program Office.

Signing Authority

The Director, U.S. Fish and Wildlife Service, approved this document and authorized the undersigned to sign and submit the document to the Office of the Federal Register for publication electronically as an official document of the U.S. Fish and Wildlife Service. Martha Williams, Principal Deputy Director Exercising the Delegated Authority of the Director, U.S. Fish and Wildlife Service, approved this document on June 23, 2021, for publication.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, we hereby propose 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. Amend § 17.11(h) by revising the entry for ''Sucker, razorback'' under FISHES on the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
*	*	*	*	*
FISHES				
*	*	*	*	*
Sucker, razorback	*Xyrauchen texanus*	Wherever found	T	56 FR 54957, 10/23/1991; [**FEDERAL REGISTER** CITATION WHEN PUBLISHED AS A FINAL RULE]; 50 CFR 17.44(gg);[4d] 50 CFR 17.95(e).[CH]
*	*	*	*	*

■ 3. Amend § 17.44 by adding paragraph (gg) to read as follows:

§ 17.44 Special rules—fishes.

* * * * *

(gg) Razorback sucker (*Xyrauchen texanus*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to the razorback sucker. Except as provided under paragraphs (gg)(2) and (3) of this section and §§ 17.4 and 17.5, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be committed, any of the following acts in regard to this species:

(i) Import or export, as set forth at § 17.21(b) for endangered wildlife.

(ii) Take, as set forth at § 17.21(c)(1) for endangered wildlife.

(iii) Possession and other acts with unlawfully taken specimens, as set forth at § 17.21(d)(1) for endangered wildlife.

(iv) Interstate or foreign commerce in the course of commercial activity, as set forth at § 17.21(e) for endangered wildlife.

(v) Sale or offer for sale, as set forth at § 17.21(f) for endangered wildlife.

(2) *General exceptions from prohibitions.* In regard to this species, you may:

(i) Conduct activities as authorized by an existing permit for its duration under § 17.32.

(ii) Conduct activities as authorized by a permit issued prior to [*EFFECTIVE DATE OF THE FINAL RULE*] under § 17.22 for the duration of the permit.

(iii) Take, as set forth at § 17.21(c)(2) through (4) for endangered wildlife.

(iv) Take, as set forth at § 17.31(b).

(v) Possess and engage in other acts with unlawfully take wildlife, as set forth at § 17.21(d)(2) for endangered wildlife.

(3) *Exceptions from prohibitions for specific types of incidental take.* You may take razorback sucker while carrying out the following legally conducted activities in accordance with this paragraph:

(i) *Definitions.* For the purposes of this paragraph (gg)(3):

(A) *Person* means a person as defined by section 3(13) of the Act.

(B) *Qualified person* means a full-time fish biologist or aquatic resources manager employed by any of the Colorado River Basin State or Tribal wildlife agencies or the Department of the Interior bureau offices located within the Colorado River basin, or a fish biologist or aquatic resource manager employed by a private consulting firm, provided the firm has received a scientific collecting permit from the appropriate State or Tribal agency.

(C) *Reasonable care* means limiting the impacts to razorback sucker individuals and populations by complying with all applicable Federal, State, and Tribal regulations for the activity in question; using methods and techniques that result in the least harm, injury, or death, as feasible; undertaking activities at the least impactful times and locations, as feasible; salvaging individuals from treatment areas, as feasible, and returning them to a location that supports recovery of the species; ensuring the number of individuals removed or sampled minimally impacts existing extant wild populations; ensuring no disease or parasites are introduced into existing extant wild populations; and preserving the genetic diversity of extant wild populations.

(ii) *Captive-breeding, reintroduction, and stocking.* A qualified person may take razorback sucker while engaging in captive-propagation, stocking, or reintroduction, provided that reasonable care is practiced to minimize the effects of that taking. All captive-breeding shall be conducted by a qualified person in accordance with Service policies pertaining to the propagation of listed species and all Federal, State, and Tribal laws and regulations. Methods of allowable take include, but are not limited to, removing wild individuals via electrofishing, nets, and seines from the six core populations; managing captive populations, including handling, rearing, and spawning of captive fish; and sacrificing individuals for hatchery management, such as parasite and disease certification.

(iii) *Exhibitions of captive-bred razorback sucker in aquaria for educational purposes.* A person may exhibit live, captive-bred razorback sucker in aquaria for educational purposes. Allowable take includes, but is not limited to, incidental take associated with the care and display of captive-bred razorback sucker in aquaria for educational purposes.

(A) An educational message shall be presented with each animal and shall include the following minimal information: Common and scientific names, historical and current distribution, Endangered Species Act listing status as threatened, and a brief history of recovery.

(B) All exhibitions must be provided routine care and be housed in aquaria of 10 gallons (38 liters) or more.

(C) Captive-bred razorback sucker used in exhibitions may not be released into natural waterways without written permission from the Service, which will define time, location, and procedures to be used during release. Any releases of captive-bred razorback sucker used for educational purposes must be in compliance with all Federal, State, and Tribal laws and regulations.

(iv) *Creation and management of nursery habitats.* A qualified person may take razorback sucker to create or manage nursery habitats to support the growth of larval and juvenile razorback sucker. The Service must approve, in advance and in writing, the development of any nursery habitat with the primary or secondary purpose of conserving razorback sucker. Methods of allowable take include, but are not limited to, draining or drying an occupied floodplain wetland to remove fish or perform habitat maintenance; construction activities to improve or maintain the wetland; and habitat management activities to alter vegetation including but not limited to mechanical, chemical, and burning treatments.

(v) *Nonnative fish removal.* A qualified person may take razorback sucker in order to perform nonnative fish removal for conservation purposes if reasonable care is practiced to minimize effects to razorback sucker. Nonnative fish removal for conservation purposes means any action with the primary or secondary purpose of mechanically removing nonnative fishes that compete with, predate, or degrade the habitat of razorback sucker. The Service and all applicable landowners must approve, in advance and in writing, any nonnative fish removal activities. Methods of allowable take include, but are not limited to, mechanical removal of nonnative fish within occupied razorback sucker habitats, including, but not limited to, electrofishing, seining, netting, and angling and the use of other ecosystem modifications, such as altered flow regimes or habitat modifications, for the purpose of managing nonnative species populations that may impact razorback sucker populations.

(vi) *Catch-and-release angling of razorback sucker.* States and Tribes may enact Federal, State, and Tribal fishing regulations that address catch-and-release angling. In federally designated critical habitat for the razorback sucker, angling activities may include nontargeted (incidental) catch and release of razorback sucker when targeting other species in accordance with Federal, State, and Tribal fishing regulations. In areas outside of federally designated critical habitat for the razorback sucker, angling activities may include targeted catch and release of razorback sucker in accordance with Federal, State, and Tribal fishing regulations.

(A) Angling activities for razorback sucker may cause take via handling, injury, and unintentional death to razorback sucker that are caught via angling.

(B) Reasonable consideration by the Federal, State, and Tribal agencies for incidental catch and release of razorback sucker in critical habitat include regulating tactics to minimize potential injury and death to razorback sucker if caught and communicating the potential for catching razorback sucker in these areas.

(C) Reasonable consideration for establishing new recreational angling locations for razorback sucker includes, but is not limited to, evaluating each water body's ability to support razorback sucker and sustain angling; ensuring the recreational fishing population does not detrimentally impact populations of razorback sucker through such factors as disease or genetic drift; and monitoring to ensure there are no detrimental effects to the razorback sucker population from angling.

(D) The Service and all applicable State, Federal, and Tribal landowners must approve, in advance and in writing, any new recreational fishery for razorback sucker.

(vii) *Chemical treatments to support razorback sucker.* A qualified person may take razorback sucker by performing a chemical treatment in accordance with Federal, State, and Tribal regulations that would support the conservation and recovery of razorback sucker, provided that reasonable care is practiced to minimize

the effects of such taking. For treatments outside of occupied razorback sucker habitat, Service approval is not required, and care should be taken to limit the potential for fish toxicants and piscicides travelling beyond treatment boundaries and impacting razorback sucker. For treatments in known or potentially occupied razorback sucker habitat, the Service must approve any treatment, in advance and in writing.

(viii) *Reporting and disposal requirements.* Any mortality of razorback sucker associated with the actions authorized under the provisions of this paragraph (gg) must be reported to the Service within 72 hours, and specimens may be disposed of only in accordance with directions from the Service. Reports in the upper basin (upstream of Glen Canyon Dam) must be made to the Service's Mountain-Prairie Region Law Enforcement Office, or the Service's Upper Colorado River Endangered Fish Recovery Office. Reports in the lower basin (downstream of Glen Canyon Dam) must be made to the Service's Southwest Region Law Enforcement Office, or the Service's Arizona Fish and Wildlife Conservation Office. Contact information for the Service's regional offices is set forth at 50 CFR 2.2. The Service may allow additional reasonable time for reporting if access to these offices is limited due to office closure or if the activity was conducted in an area without sufficient communication access.

Anissa Craghead,

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