DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2024–0018; FXES1111090FEDR–245–FF09E21000]

RIN 1018–BH39

Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for the Santa Ana Speckled Dace

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list the Santa Ana speckled dace (*Rhinichthys gabrielino*), a fish species native to California, as a threatened species under the Endangered Species Act of 1973, as amended (Act). This determination also serves as our 12-month finding on a petition to list the Santa Ana speckled dace. After a review of the best available scientific and commercial information, we find that listing the species is warranted. Accordingly, we propose to list the Santa Ana speckled dace as a threatened species with protective regulations issued under section 4(d) of the Act (''4(d) rule''). If we finalize this rule as proposed, it would add this species to the List of Endangered and Threatened Wildlife and extend the Act's protections to the species. Due to the current lack of data sufficient to perform required analyses, we conclude that the designation of critical habitat for the species is not determinable at this time.

DATES: We will accept comments received or postmarked on or before October 15, 2024. 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 September 27, 2024.

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

(1) *Electronically:* Go to the Federal eRulemaking Portal: *https://www.regulations.gov.* In the Search box, enter FWS–R8–ES–2024–0018, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on ''Comment.''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R8–ES–2024–0018, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

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

Availability of supporting materials: Supporting materials, such as the species status assessment report, are available at *https://www.regulations.gov* under Docket No. FWS–R8–ES–2024–0018.

FOR FURTHER INFORMATION CONTACT: Scott Sobiech, Field Supervisor, Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2177 Salk Avenue, Carlsbad CA 92008; telephone 760–431–9440. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States. Please see Docket No. FWS–R8–ES–2024–0018 on *https://www.regulations.gov* for a document that summarizes this proposed rule.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act (16 U.S.C. 1531 *et seq.*), a species warrants listing if it meets the definition of an endangered species (in danger of extinction throughout all or a significant portion of its range) or a threatened species (likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range). If we determine that a species warrants listing, we must list the species promptly and designate the species' critical habitat to the maximum extent prudent and determinable. We have determined that the Santa Ana speckled dace meets the Act's definition of a threatened species; therefore, we are proposing to list it as such. Listing a species as an endangered or threatened species can be completed only by issuing a rule through the Administrative Procedure Act rulemaking process (5 U.S.C. 551 *et seq.*).

What this document does. We propose to list the Santa Ana speckled dace as a threatened species with protective regulations issued under section 4(d) of the Act.

The basis for our action. Under the Act, we may determine that a species is an endangered or threatened species because of any of five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We have determined that the Santa Ana speckled dace is threatened due to the following threats: habitat loss (due to urban development), habitat degradation (roadways, recreational activities, mining activities, and hydrological modifications and diversions), habitat fragmentation, increased fire frequency and intensity, climate change effects (*e.g.,* warmer air temperatures, more intense precipitation events including drought and flooding), nonnative species (invasive aquatic species predation and competition), and small population effects (*e.g.,* inbreeding depression and loss of genetic diversity).

Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary), to the maximum extent prudent and determinable, concurrently with listing designate critical habitat for the species. We have not yet been able to obtain the necessary economic information needed to develop a proposed critical habitat designation for the Santa Ana speckled dace, although we are in the process of obtaining this information. At this time, we find that designation of critical habitat for the Santa Ana speckled dace is not determinable. When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

Information Requested

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

(1) The species' biology, range, and population trends, including:

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

(b) Genetics and taxonomy;

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

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

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

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

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

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

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

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

(4) Information to assist with applying or issuing protective regulations under section 4(d) of the Act that may be necessary and advisable to provide for the conservation of the Santa Ana speckled dace. In particular, we seek information concerning the extent to which we should include any of the section 9 prohibitions in the 4(d) rule or whether we should consider any additional exceptions 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, do not provide substantial information necessary to support a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made solely on the basis of the best scientific and commercial data available.

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

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

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

Our final determination may differ from this proposal because we will consider all comments we receive during the comment period as well as any information that may become available after this proposal. Based on the new information we receive (and, if relevant, any comments on that new information), we may conclude that the species is endangered instead of threatened, or we may conclude that the species does not warrant listing as either an endangered species or a threatened species. In addition, we may change the parameters of the prohibitions or the exceptions to those prohibitions in the protective regulations under section 4(d) of the Act if we conclude it is appropriate in light of comments and new information received. For example, we may expand the prohibitions if we conclude that the protective regulation as a whole, including those additional prohibitions, is necessary and advisable to provide for the conservation of the species. Conversely, we may establish additional exceptions to the prohibitions in the final rule if we conclude that the activities would facilitate or are compatible with the conservation and recovery of the species. In our final rule, we will clearly explain our rationale and the basis for our final decision, including why we made changes, if any, that differ from this proposal.

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. We may hold the public hearing in person or virtually via webinar. We will announce any public hearing on our website, in addition to the **Federal Register**. The use of virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

Previous Federal Actions

On May 11, 2020, we received a petition from the Center for Biological Diversity requesting that the Santa Ana speckled dace be listed as an endangered or threatened species and critical habitat be designated for this species under the Act. The petition clearly identified itself as such and included the requisite identification information for the petitioner, required at 50 CFR 424.14(c). On June 17, 2021, we published in the **Federal Register** (86 FR 32241) a 90-day finding that the petition presented substantial scientific or commercial information indicating the petitioned action may be warranted.

Peer Review

A species status assessment (SSA) team prepared an SSA report for the Santa Ana speckled dace (Service 2023a, entire). The SSA team was composed of Service biologists, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species.

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

Summary of Peer Reviewer Comments

As discussed above in Peer Review, we received comments from one peer reviewer. We reviewed all comments for substantive issues and new information regarding the material contained in the

SSA report. The reviewer generally provided additional references, clarifications, and suggestions for the SSA report. We updated the SSA report based on the information we received and worked with researchers to update the current and future condition analyses. The substantive peer reviewer comment is addressed in the following summary, and the information provided was incorporated into the SSA report as appropriate (Service 2023a, entire).

Comment 1: The reviewer commented on debris flows and provided clarifying language when describing the cause, stating debris flows are caused by intense rainfall, not by existing surface water already flowing in a channel. The reviewer also clarified how fire increases the magnitude of debris flows, indirectly impacting dace. They also noted that while debris flows are more common in the winter, summertime debris flows have been documented in the Santa Ana Mountains.

Our Response: We clarified language in the SSA report to reflect more accurately the cause of debris flows and the indirect impact fire has on daces with regard to debris flows. Flooding events are not necessarily the cause of debris flows. Instead, intense precipitation events cause debris flows that may also result in flooding. Language in the SSA report was also revised to reflect the possibility of debris flows occurring outside of winter when larger rainfall events are expected. We recognize that while wildfires do not cause debris flows, they increase the likelihood of a debris flow.

I. Proposed Listing Determination

Background

A thorough review of the taxonomy, life history, and ecology of the Santa Ana speckled dace is presented in the SSA report (Service 2023a, pp. 6–8).

The Santa Ana speckled dace is a small freshwater fish that occupies cool headwaters of perennial streams and rivers in the mountains north and east of Los Angeles, California. The species was historically found throughout river systems at the bases of the San Gabriel, San Bernardino, and San Jacinto Mountain ranges in Los Angeles, San Bernardino, and Riverside Counties, California. For a map of the species' range, see Docket No. FWS–R8–ES–2024–0018 on *https://www.regulations.gov.*

Several speckled dace species occur throughout California. At the time of our petition finding, we stated that a formal taxonomic description at the species rank or subspecies rank had not been prepared and had not passed scientific peer review, either as part of acceptance for publication or through some other equivalent review. We therefore determined that the Santa Ana speckled dace was not listable as a taxonomically described species. The Santa Ana speckled dace has since been described as genetically distinguishable from other speckled dace species (Su et al. 2022, entire, Moyle et al. (2023, entire). Therefore, in this proposed rule we are analyzing the Santa Ana speckled dace at the species rank.

The Santa Ana speckled dace has an olive to darkish yellow body, with the stomach area paler in color. During the breeding season, both males and females have orange- or red-tipped fins, with males also having red snouts and lips. This small-scaled fish has a small downfacing mouth and a pointed snout with a small barbel on each end of the maxilla. A small patch of skin connects the snout to the upper lip. The speckled dace's subterminal mouth and tooth structure are ideal for consuming the small aquatic invertebrates most common in riffles (hydropsychid caddisflies, baetid mayflies, and chironomid and simuliid midges), which generally make up the bulk of the speckled dace's diet (Moyle et al. 2015, p. 2). The speckled dace also consumes filamentous algae (Moyle et al. 2015, p. 2).

The Santa Ana speckled dace's lifespan is coarsely correlated with maximum size, with dace under 80 millimeters (mm) fork length (FL) (the typical size of a Santa Ana speckled dace) living for roughly 3 years. Dace in the upper reaches of the San Gabriel River drainage commonly reach more than 110 mm (4.3 inches (in)) standard length (SL); in other locations, dace this large can live up to 6 years (Moyle et al. 2015, p. 3). Daces grow to 20 to 30 mm (0.79 to 1.2 in) SL by the end of their first summer and grow each subsequent year by an average of 10 to 15 mm (0.4 to 0.6 in) SL. Typically females grow faster than males. Under stressful environmental conditions, limited food, or high population densities, growth rates can decrease. Santa Ana speckled daces reach sexual maturity by the end of the second summer; based on size and location, females generate between 190 and 800 eggs (Moyle et al. 2015, p. 3). High flow events and/or rising water temperatures are normally correlated with dace spawning, making March through May the presumed spawning period for the Santa Ana speckled dace.

Regulatory and Analytical Framework

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for endangered and threatened species. On April 5, 2024, jointly with the National Marine Fisheries Service, we issued a final rule that revised the regulations in 50 CFR part 424 regarding how we add, remove, and reclassify endangered and threatened species and what criteria we apply when designating listed species' critical habitat (89 FR 24300). On the same day, we published a final rule revising our protections for endangered species and threatened species at 50 CFR 17 (89 FR 23919). These final rules are now in effect and are incorporated into the current regulations.

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

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

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

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

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

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

We use the term ''threat'' to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term ''threat'' includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals

through alteration of their habitat or required resources (stressors). The term ''threat'' may encompass—either together or separately—the source of the action or condition or the action or condition itself.

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

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

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the 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 proposed for listing as an endangered or threatened species under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies.

To assess the Santa Ana speckled dace's viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency is the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years); redundancy is the ability of the species to withstand catastrophic events (for example, droughts, large pollution events); and representation is the ability of the species to adapt to both near-term and long-term changes in its physical and biological environment (for example, climate conditions, pathogens). In general, species viability will increase with increases in resiliency, redundancy, and representation (Smith et al. 2017, p. 306). 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 the 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 which we then used to inform our regulatory decision.

The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS–R8–ES–2024–0018 on *https://www.regulations.gov*.

Summary of Biological Status and Threats

In this discussion, 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. We analyze these factors both individually and cumulatively to determine the current condition of the species and project the future condition of the species under both plausible future scenarios at mid- and late-century.

Species Needs

In order for the Santa Ana speckled dace to have high viability, the species needs to maintain its representation (adaptive capacity) by having multiple, sufficiently resilient populations (redundancy) in different watersheds. The amount of available habitat for the Santa Ana speckled dace is mainly driven by cold, flowing water in the streams throughout the watersheds that the species occupies. Having reaches of flowing water (as opposed to dry creek beds) that individuals can occupy and use to disperse to new areas in the watershed is important for population resiliency. The species inhabits a relatively small area, making adequate amounts of suitable habitat important for the resiliency of the species.

Individual needs for the Santa Ana speckled dace revolve around having consistent clean, cool water (estimated temperatures that stay below 28 degrees Celsius (°C) (82 degrees Fahrenheit (°F)) in the summer months) with access to aquatic invertebrates as a food source. Fertilized eggs and larvae utilize gravel substrate during development, and, later, larvae use rocks and emergent vegetation for cover. Adult Santa Ana speckled daces inhabit a variety of stream habitats, with a preference for moving water. Populations need abundant individuals within habitat patches of adequate area and quality to maintain survival and reproduction in spite of disturbance. For the Santa Ana speckled dace, this revolves around having adequate flows of cold water that connect the populations within each watershed. Having enough water in ephemeral creeks and limited fish barriers are important to allow dace within the population to disperse

throughout connected habitat and not become isolated. Santa Ana speckled dace population size varies greatly based on the annual conditions of the habitat, and populations will rebound when conditions are conducive to the species' needs. The amount of water is strongly correlated with the annual fluctuation in habitat conditions, with droughts correlated to lower dace numbers. Without enough cold water throughout the year to maintain connectivity, populations are more likely to become isolated and less resilient to the presence of ongoing threats.

Connectivity allows individuals to move among reaches in a watershed, for example, upstream and downstream without barriers impeding movement. Connectivity allows for movement of individuals in response to stressors such as high flow events or fire and allows for dispersal and gene flow among Santa Ana speckled dace occurrences, which maintains genetic diversity and increases population resiliency. Connectivity within a watershed becomes increasingly important as localized threats increase, forcing individuals to find more suitable habitat to survive.

Factors Influencing Species Viability

The following discussion provides a summary of the primary factors that affect or may affect the current and future conditions of the Santa Ana speckled dace. For our analysis, we evaluated impacts from the following threats to the species: (1) habitat loss (due to urban development); (2) habitat degradation (due to recreational activities, mining, roadways, and hydrological activities and diversions); (3) habitat fragmentation; (4) increased risk of wildfire (probability of fire and contributions to debris flows); (5) changing climate trends (*e.g.,* increased debris flows from high wintertime precipitation events, increased temperatures, and longer, more frequent drought periods); (6) nonnative species (increased competition and predation); and (7) small population effects.

Habitat Loss

The lower portions of the San Gabriel, Santa Ana, and Los Angeles rivers that were part of the Santa Ana speckled dace's historical range no longer support the species because of habitat loss from extensive urbanization. The middle and lower reaches of these rivers have been channelized and impounded for flood control, and riparian corridors have been replaced with concrete-lined canals. Water quality has also been degraded and become unsuitable for daces due to urbanization. For example, the lower reaches of the San Gabriel, Santa Ana, and Los Angeles rivers have highly unsuitable levels of pH, ammonia, lead, coliform, trash, scum algae, total dissolved solids, heavy metals, pathogens, bacteria, and nutrients (Moyle et al. 2015, p. 8). Habitat that is currently suitable for the Santa Ana speckled dace is restricted to headwater habitats that are not impacted by urbanization.

Habitat Degradation

Recreational Activities—Much of the remaining habitat occupied by the Santa Ana speckled dace is located in the Angeles and San Bernardino National Forests, which are some of the most heavily visited National Forests in the country. Impacts from recreation are an increasing threat for daces, particularly in the small waterways they inhabit. Recreational activities that directly impact daces and their habitat include swimming, off-highway vehicle (OHV) use, dam building, littering, camping, and recreational mining. These activities stress and displace fish. The artificial impoundments erected to create swimming and bathing areas impact water quality (including temperature and sedimentation) and fragment the habitat by limiting dispersal. OHV use directly disturbs waterways and nearby vegetation and soils, as well as increases nonpoint sources of pollution (including trash) and sedimentation. Based on current levels, recreational activities are a moderate and rangewide threat to the Santa Ana speckled dace.

Mining—Suction dredging is currently banned in California, although it was used in the past in the San Gabriel River and in the Cajon Wash and Lytle Creek. Recreational mining for gold has increased in these same areas in recent years with the increase in gold prices. This activity lowers water quality, destroys sensitive habitat, and disturbs Santa Ana speckled daces in the surrounding areas. In the San Gabriel River watershed, gold mining activities are impacting daces in the East Fork of the San Gabriel River and Cattle Creek. Habitat in Fish Canyon has also been impacted by a rock quarry, although, as of 2015, the mining company was in the process of restoring habitat for the Santa Ana speckled dace (Moyle et al. 2015, p. 8). Any mining activities that affect the water channel can also directly kill or injure individual fish. Overall, mining activities occur in a few areas and appear to be less extensive than other recreational activities. While mining is not currently considered a substantial threat, recreational mining is currently degrading habitat quality in some areas within the species' range, and changes in restrictions that would increase the rangewide extent of mining activities could result in a substantial increase in impact on the Santa Ana speckled dace in the future.

Roadways—Roadways that run along or cross occupied Santa Ana speckled dace habitat create a variety of impacts that degrade habitat and impact water quality. Roads are sources of nonpoint pollution (chemical and trash) and sediment inputs and can also constrict the natural morphology of the waterway (straighten out a naturally braided stream), restricting dispersal capacity for individuals. Roads can also negatively impact or eliminate vegetation near riverbanks, degrading water quality and overall habitat quality. Unpaved roads increase the potential for erosion and sediment inputs, especially in mountainous terrain, where most of the remaining Santa Ana speckled dace habitat is found. Where roads facilitate recreational access and activities, the associated negative effects are moderately impacting the majority of Santa Ana speckled dace analytical units.

Hydrological Activities and Diversions—Water flow in Big Tujunga Creek and in the West Fork of the San Gabriel River is regulated by large permanent dams that impact habitat quality, stream flow, water temperature, sediment transport, stream morphology, and dispersal. Unregulated flows are available to maintain habitat for the Santa Ana speckled dace in the East and North Forks of the San Gabriel River and their associated tributaries. Several unregulated tributaries also flow into Big Tujunga Creek.

Dams and regulated flows reduce the delivery of coarse substrates (for example, cobble and gravel) to occupied downstream reaches, reducing breeding and forage habitat. Above dams, the accumulation of sediments converts actively flowing stream channels to still-water marshes. Marsh habitat favors nonnative species, such as largemouth bass (*Micropterus salmoides*) and other centrarchids that are predators on Santa Ana speckled dace (USACE 2001, p. 4–28). Slow or standing water also allows fine materials to settle out, resulting in a substrate that does not support breeding and foraging habitat for the Santa Ana speckled dace. In periods of extreme drought, releases from dams have helped provide sufficient flows to move sediment to improve habitat for the Santa Ana speckled dace downstream.

Levees and other methods of channelizing streams limit and often prevent the natural meandering process of rivers, limiting them to more linear paths. As such, levees confine available habitats to a narrower geographical area and, under most conditions, a shorter linear length. Additionally, during flood events, water confined within levees flows faster, and areas that serve as refugia/sheltering habitat become scarce. In summary, hydrological modifications—dams and stream channelization activities—have significantly altered and degraded Santa Ana speckled dace habitat throughout the dace's historical range, reducing its current habitat conditions compared to its historical habitat conditions, and represent a moderate to high threat to the species.

Habitat Fragmentation From Hydrological Modifications

Hydrological modifications also limit or sever habitat connectivity, which affects the dispersal of the Santa Ana speckled dace. Such modifications include flood control dams, drop structures, recreational dams, road crossings (for example, culverts), and levees. Large dams, such as Cogswell Dam, severely limit connectivity between Santa Ana speckled dace populations, only allowing limited, unidirectional migration downstream. These and other barriers reduce fish passage, in turn reducing gene flow and limiting or preventing population replenishment. Drop structures also impede or prevent upstream movement. Recreational dams, constructed out of rocks, vegetation, or other debris to create pools for recreational waterplay, create barriers during low-flow conditions but may be passable during higher flow conditions. Although recreational dams are typically destroyed by high winter flows, recreationalists subsequently rebuild new dams. Trash and debris can also build up during high flows and create barriers. Culverts and other road crossings may prevent access into tributaries or limit connectivity within the main river channel. Additionally, prolonged periods of low flows as a result of reduced water input (such as through flood control measures, storage, or diversion, or through drought conditions) can allow native and nonnative vegetation to accumulate, which can sometimes serve as barriers to fish passage (see OCWD 2012, entire). Barriers are currently present rangewide, causing a moderately high impact on the Santa Ana speckled dace.

Debris Flows and Increased Risk of Wildfire

Debris flows are fast-moving landslides that generally occur during periods of intense rainfall or rapid snowmelt and usually start on hillsides or mountains. Heavy precipitation in steep areas can cause debris flows, which negatively impact Santa Ana speckled dace occupancy and can extirpate small, isolated occurrences, as likely historically occurred within Fish Canyon Creek. Currently, debris flows are a disproportionate threat because all remaining dace habitat now occurs in small, steep waterways due to the loss of less steep downstream habitat to development and human activities. Debris flows can result from an excess overland flow from intense precipitation in steep mountain catchments with available sediment. In southern California mountains, debris flows are driven by precipitation and occur in both burned and unburned terrain. However, wildfires greatly increase the likelihood of debris flows within the burned area by removing vegetation and temporarily elevating soil hydrophobicity (Staley et al. 2017, entire), where hydrophobic layers are created in the soil profile from the heat. When debris flows occur, they can cause significant erosion to hillslopes and channels, resulting in large amounts of sediment being carried downstream. This excessive sediment can fill in pools, causing profound negative impacts on local wildlife, including fish such as the Santa Ana speckled dace.

Wildfire has the potential to impact Santa Ana speckled dace habitat throughout all of the occupied and unoccupied reaches of all watersheds within the range of the species. Wildfire also eliminates vegetation that shades the water and moderates water temperature and may further impact water transport, sediment transport, water quality, and flow regime. Fires followed by debris flows have the potential to extirpate occurrences (particularly small, isolated occurrences), especially when fire frequency increases. Burned uplands in the watersheds affect Santa Ana speckled dace habitat by producing silt-and-ash-laden runoff that can fill in pools and significantly increase turbidity of rivers. Large wildfires have caused local extirpations in isolated dace occurrences (Expert Working Group 2023, p. 23). Wildfire will impact the Santa Ana speckled dace throughout its remaining range, although the location, frequency, and size of these events cannot be precisely predicted. An expected increase in wildfire frequency and severity is currently a substantial threat to Santa Ana speckled dace habitat. Changing climate conditions are a primary driver for this, as described below.

Changing Climate

Climate change forecasts for the Northern Hemisphere predict warmer air temperatures, more intense precipitation events (both drought and flooding), and increased summer continental drying by the year 2100 (Cayan et al. 2005, p. 6). The Santa Ana speckled dace requires cooler water, with temperatures that stay below 28 °C (82 °F). The species is capable of withstanding elevated water temperatures (Moyle et al. 2015, p. 11), but the lethal upper temperature limit is unknown. Fish are generally more stressed at the upper extremes of their temperature range, and although they may be able to survive, elevated temperature is an example of a stressor that may affect them through reduced disease resistance (Moyle et al. 2015, p. 11). Drought negatively impacts dace by reducing connectivity within currently occupied watersheds, further isolating dace, limiting available habitat, and degrading remaining habitat. Currently, impacts from climate change are considered moderate, but they are projected to increase in the future. Although average annual precipitation is predicted to increase, summer and fall flows are predicted be stable to slight decreases, which will reduce connectivity within currently occupied watersheds, further isolating dace, limiting available habitat, and degrading remaining habitat. Increases in precipitation from wintertime storms could have both beneficial impacts to the streams (mitigating impacts from drought including flushing systems, reconnecting isolated reaches). However, increases in wintertime precipitation in southern California due to climate change would most likely lead to more frequent intense storms that can initiate debris flows, both in burned and unburned settings. Additionally, increasing summer air temperatures and decreasing precipitation will likely impact the availability of suitable cooler-water habitat during the summer and fall months, when the Santa Ana speckled dace is already most vulnerable to low flows and high water temperatures.

Regionally, the American Southwest has the hottest and driest climate in the United States. The current drought in the western United States is one of the worst in the last 1,200 years and is exacerbated by climate warming (Williams et al. 2020, p. 317). Climate

warming will make droughts longer, more severe, and more widespread in the future. Prolonged droughts can cause effects to Santa Ana speckled dace habitat (*e.g.,* stream flows and the frequency and severity of wildfire) in detrimental ways.

Climate change is also predicted to increase fire probability. Although the fire footprint is not likely to change—because most of the area within the range of the Santa Ana speckled dace has already burned—there is an increased probability of fires in the future.

Increases in wintertime precipitation in southern California due to climate change would most likely lead to more frequent intense storms that can initiate debris flows, both in burned and unburned settings. The combination of elevated water temperatures with increased risks from drought (in summer), increased rainfall (in winter), and fire throughout the remaining range of the Santa Ana speckled dace suggests a higher threat from climate change in the future.

Nonnative Species

Aquatic habitat may be modified by the presence of nonnative vegetation in a variety of ways. For the Santa Ana speckled dace, the giant reed (*Arundo donax*), an invasive, bamboo-like, perennial grass (*Poaceae*), poses a host of problems that degrade remaining habitats. Giant reed is commonly found growing along lakes, streams, and other wetted areas, and once established it can survive long periods of drought. Where dominant, giant reed is correlated with increased levels of pH and ammonia and decreased levels of dissolved oxygen (Moyle et al. 2015, p. 9). Compared to other riparian vegetation, it uses large amounts of water to support exceptionally high growth rates (Bell 1997, p. 104). This species is considered a primary threat to riparian corridors, and thus Santa Ana speckled dace habitat, because of its ease of establishment and spread and its ability to alter the hydrology of riparian systems (CDFW 2015, p. F–11).

There are numerous nonnative fish species that are common in all four of the river systems where Santa Ana speckled daces are found. These species are concentrated in the reservoirs and degraded streams within these watersheds. Brown trout (*Salmo trutta*), hatchery-stocked rainbow trout (*Oncorhynchus mykiss*), and red shiners (*Cyprinella lutrensis*) can either directly compete with or predate on dace (Moyle et al. 2015, p. 9). The American bullfrog (*Lithobates catesbeiana*), another potential predator, has also been observed in Big Tujunga Creek, and may predate on varying life stages of the dace (Haines Creek) (ECORP Consulting Inc. 2013, pp. 29–31). Additionally, the red swamp crayfish (*Procambarus clarkii*), predates upon the Santa Ana speckled dace, is known from Big Tujunga Creek (O'Brien 2015, entire) and may also be more widespread. Dams and impoundments (such as engineered flood control dams, recreational dams, drop structures, and groundwater recharge basins) and pools created as the result of changes in hydrology from the giant reed can improve habitat for nonnative predators, allowing their populations to increase. Impacts from nonnative predators are rangewide and can be severe at the population scale. The conditions that promote exposure to predation are highly variable across locations and over time. Therefore, the threat of nonnatives to the Santa Ana speckled dace is considered a low to moderate threat.

Small Population Effects

The Santa Ana speckled dace occurs mostly in small, isolated populations throughout its range. These small, isolated populations are vulnerable to a number of deleterious effects including: (1) demographic fluctuation due to random variation in birth and death rates and sex ratio; (2) environmental fluctuation in resource or habitat availability, predation, competitive interactions, and catastrophes; (3) reduction in cooperative interactions and subsequent decline in fertility and survival (*i.e.,* Allee effects); (4) inbreeding depression reducing reproductive fitness; and (5) loss of genetic diversity reducing the ability to evolve and cope with environmental change (Traill et al. 2010, p. 29). In particular, small populations of Santa Ana speckled dace are more vulnerable to extirpation during catastrophic or stochastic events, such as flood events (that can physically wash dace away), debris flows (which are much more likely after fire and reduce habitat quality and population size), or sustained drought (that can result in the loss or reduction of surface flows and concomitant increases in water temperature). Isolation means that any remnant populations following these events are unlikely to benefit from demographic or genetic rescue, further elevating the risks of inbreeding depression, loss of genetic diversity, and reductions in evolutionary potential that can contribute to population extirpation. These small population effects interact with other factors to pose a low to moderate threat across the species' current range.

Cumulative and Synergistic Effects

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have analyzed the cumulative effects of identified threats and conservation actions on the species. To assess the current and future condition of the species, we evaluate the effects of all the relevant 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.

Conservation Efforts and Regulatory Mechanisms

Several mechanisms provide a conservation benefit to the Federally-listed Santa Ana sucker (*Catostomus santaanae*), which also provide a benefit to Santa Ana speckled dace where the species co-occur. A native fish facility is operated by the Riverside-Corona Resource Conservation District that rears native fish including Santa Ana sucker and Santa Ana speckled dace for multiple conservation efforts including research, temporary holding, breeding for augmentations and reintroductions, and educational purposes. The draft Upper Santa Ana River Habitat Conservation Plan (HCP) has a conservation strategy with objectives and actions that help benefit Santa Ana speckled dace in the Santa Ana River AU including long term monitoring, threats analysis, removing barriers and installing fishway passages to increase connectivity, nonnative species control, and salvage operations to relocate individuals after floods. The Santa Ana speckled dace is also a covered species under the Big Tujunga Dam Low-Effect HCP where Santa Ana speckled dace in the LA River AU benefit from multiple conservation measures. Avoidance and minimization measures are implemented to limit impacts on Santa Ana speckled dace and Santa Ana sucker, including the timing of dam releases, storing and releasing supplemental water during the dry season to improve habitat quality, habitat monitoring, dace monitoring, and potential habitat enhancement measures. Other regulatory mechanisms thought to have some potential to protect Santa Ana speckled dace include: (1) California Endangered Species Act (where the Santa Ana speckled dace co-occurs with State-

listed species), (2) California Environmental Quality Act, (3) National Environmental Policy Act, (4) the Clean Water Act, (5) the Endangered Species Act (where Santa Ana speckled dace co-occurs with other federally-listed species), and (6) land management or conservation measures by Federal, State, or local agencies or by private groups and organizations. Each of these regulatory mechanisms provide some level of support to help protect Santa Ana speckled dace throughout its range. Several State and Federal mechanisms currently provide a conservation benefit to the Federal- and State-listed Santa Ana sucker, which will also provide a benefit to Santa Ana speckled dace where the species co-occur.

Current Condition

The historical distribution of the Santa Ana speckled dace once extended across the upland and middle reaches of the Los Angeles, San Gabriel, Santa Ana, and San Jacinto rivers. These systems were historically connected in the alluvial plain during flood events, allowing for connectivity among watersheds. Additionally, these areas provided suitable habitat as well as refuge for populations during stochastic and catastrophic events such as fire, drought, and debris flows. The historical viability afforded to daces by this diversity and extent of available habitats has been lost to development and other human impacts in the lower reaches of these watersheds. For the Santa Ana speckled dace, the impacts of these changes from historical to current conditions include reductions in currently available habitat, reduced quality of remaining available habitat, minimal to no connectivity among occupied river occurrences within and among watersheds, and presumed small population sizes based on declining detections over time and/or small numbers of observed fish. This historical context for the current status of the Santa Ana speckled dace sets the stage for the species' overall capacity to withstand environmental and demographic stochasticity and disturbances (resiliency), catastrophic events (redundancy), and novel changes in its biological and physical environment (representation).

When determining population resiliency for the Santa Ana speckled dace, we examined the four currently occupied river systems as separate populations or analysis units: San Gabriel, Los Angeles, Santa Ana, and San Jacinto analysis units. We used four metrics representing habitat and demographic needs to evaluate resiliency at the analysis unit scale: amount of habitat, quality of habitat, connectivity, and population size. We determined the overall resiliency condition for each analysis unit by narratively integrating two habitat needs (habitat quality and amount of habitat) and two demographic needs (size of population and connectivity), with the size of population (*i.e.,* abundance of individuals within a population) accounting for relatively more of the overall resiliency condition. We evaluated representation by examining available data on the breadth of genetic, phenotypic, and ecological diversity across the Santa Ana speckled dace's range from historical to current conditions, as well as the species' ability to disperse and colonize new areas. We evaluated redundancy by analyzing the number and distribution of populations from historical to current conditions relative to the magnitude of anticipated catastrophic events, such as floods and wildfires.

Resiliency

The current condition of Santa Ana speckled dace populations varies among the four analysis units, with the San Gabriel analysis unit retaining the most high-quality and intact habitat across the range, and moderate resiliency. Relative to the other analysis units, this unit is more connected, although dispersal is limited among some occurrences due to permanent barriers. Santa Ana speckled dace populations appear to have low but stable abundance in this analysis unit; however, population size of the unit is considered moderate due to the number and quality of occupied river miles. In contrast, the Los Angeles analysis unit has less habitat available with degraded habitat quality and limited connectivity. Overall, this system has low resiliency; however, the Santa Ana speckled dace appears to be consistently present in low, though still relatively stable, numbers. The Santa Ana analysis unit has the most known occurrences and most occupied river miles, and low to moderate resiliency. Occupied occurrences are currently disconnected and remain largely isolated by the overall low flows. Abundance in the Santa Ana analysis unit is low but considered stable. Finally, the San Jacinto analysis unit is less impacted by human disturbance relative to the other analysis units, though available habitat is limited and only one small population is thought to remain extant, resulting in low resiliency. Overall, the two larger analysis units have moderate (San Gabriel) and low to moderate (Santa Ana) resiliency, contain the majority of occupied areas, and are likely to withstand stochastic events. The other two analysis units are smaller, have low resiliency, and are more at risk of extirpation from stochastic events. Table 1 shows the current condition of habitat and demographic needs and overall resiliency for each of the analysis units.

TABLE 1—OVERALL CURRENT RESILIENCY CONDITIONS FOR EACH ANALYSIS UNIT

Population	Amount of habitat	Quality of habitat	Dispersal	Size of population *	Resiliency *
Los Angeles River	Low	Low/Moderate	Low/Moderate	Low	Low.
San Gabriel River	Moderate	Moderate	Moderate	Moderate	Moderate.
Santa Ana River	Moderate	Moderate	Low	Low/Moderate	Low/Moderate.
San Jacinto River	Low	Low/Moderate	Low/Moderate	Low	Low.

* Resiliency is largely influenced by the size of population score, as this parameter is the most important in determining resiliency. Specifically, the resiliency score cannot be higher than the size of population score.

Representation

Representation, or adaptive capacity, is maximized in a species with healthy populations distributed across the breadth of its evolutionary lineages and ecological niches that is capable of moving to new, suitable environments or capable of altering their physical or behavioral traits (phenotypes) to match changing environmental conditions through either plasticity or genetic change (Nicotra et al. 2015, p. 1270; Beever et al. 2016, p. 132). By this definition, the adaptive capacity of the Santa Ana speckled dace from historical to current conditions has diminished due to the loss of historically occupied habitats across the range and isolation of

small remnant populations in headwater habitats. This has reduced representation of evolutionary lineages in each watershed and the diversity of occupied ecological niches (*i.e.,* due to population extirpations and complete loss of lower watershed habitats). Remnant populations are relatively small and isolated, both within and across the four remaining analysis units. In spite of this, the number of miles of occupied streams is still relatively high, and it is unlikely that all populations will be impacted by threats evenly or in a significant way that would cause widespread extirpation.

Disrupted connectivity and restriction to headwaters means that populations have limited capacity to colonize new habitats or shift their distribution to avoid or mitigate threats. Disrupted connectivity also reduces or eliminates gene flow, increasing the impacts of genetic drift and inbreeding, and reducing evolutionary potential that could allow populations to adapt to changing environmental conditions, such as warming stream temperatures.

While other populations of speckled daces have shown plasticity in feeding behavior that facilitates responses to fluctuating resource availability, feeding plasticity is reduced in anthropogenically impacted populations (Behn and Baxter 2019, pp. 17–19) such as the Santa Ana speckled dace. Additionally, relative to other native fish, other species in the Santa Ana speckled dace complex have limited plasticity (*i.e.,* acclimation capacity) in their upper thermal tolerance, reducing tolerance for increasing water temperatures (Carveth et al. 2006, pp. 1436–1438).

Overall, these constraints on dispersal capacity, evolutionary potential, and plasticity, in combination with low to moderate resiliency of Santa Ana speckled dace populations, point to limited representation (adaptive capacity) within populations and across the species' range.

Redundancy

As with representation, redundancy from historical to current conditions for the Santa Ana speckled dace has been diminished due to permanent loss of historically occupied habitats. In particular, loss of the lower reaches of the currently occupied watersheds has eliminated access to refugial habitats that historically protected fish from extirpation during stochastic and catastrophic events including fire, drought, and debris flows. These habitats also allowed for recolonization of upper headwaters once conditions improved. These habitat losses have placed all remaining remnant populations at a much higher risk of extirpation due to catastrophic and even less severe stochastic events. This is illustrated by fish salvage efforts (*e.g.,* in the San Gabriel River analysis unit) that were needed after the 2020 Bobcat Fire to protect populations from debris flows; historical access to lower-elevation habitats would likely have allowed populations to persist and recolonize naturally (*i.e.,* without human intervention) in response to fire and debris flow events.

Currently, the Santa Ana speckled dace occupies 17 occurrences across four analysis units. This relatively broad distribution provides some level of redundancy and helps ensure that multiple populations contribute to species viability since all occurrences are unlikely to be impacted simultaneously by any single catastrophic event. Two of the analysis units with low resiliency (Los Angeles River and San Jacinto River) are more at risk of stochastic and catastrophic events, and the loss of either of these would reduce redundancy. However, the other two analysis units are significantly larger and less likely to become extirpated from stochastic or catastrophic events. Overall, redundancy has been reduced compared to historical conditions. The fact that Santa Ana speckled daces have been able to naturally recolonize areas shortly after a catastrophic event suggests that there is recovery potential where risks can be mitigated via human intervention, which could help to maintain redundancy in the future.

Summary of Current Condition

The Santa Ana speckled dace occurs in the San Gabriel, San Bernardino, and San Jacinto Mountain ranges in Los Angeles, San Bernardino and Riverside Counties, California. The majority of occupied habitat is on Federal lands, and the species occurs in 17 extant occurrences across four analysis units. Fish are largely restricted to the headwaters with a low to moderate quantity of habitat with moderate quality habitat readily available. There is limited connectivity within some of the populations, particularly in the Santa Ana River and San Jacinto River analysis units. Populations are generally stable currently, although smaller populations will be less able to withstand environmental and demographic stochasticity in the foreseeable future. The low to moderate resiliency across the four extant units, in addition to losses across the historical range, contributes to an overall reduced adaptive capacity for Santa Ana speckled dace populations, which may limit their ability to respond to novel changes in the environment. However, the species as a whole is generally resilient to periodic disturbances, and the species is consistently detected across the analysis units. Small population sizes not only increase risks from demographic and environmental stochasticity but also reduce the genetic and trait diversity that supports evolutionarily adaptive and plastic responses to change. Lack of connectivity and limited habitat availability also reduce the ability of populations to disperse in response to changing future conditions.

Overall viability of the Santa Ana speckled dace is reduced relative to historical conditions, however there are currently 17 extant populations across the range. We anticipate that while these populations are currently relatively stable, diminished viability over time may result in a low to moderate ability to sustain populations in the wild into the future. These are the baselines that we used when projecting the species' future condition.

Future Condition

To analyze future conditions, we developed two plausible scenarios to assess how the species' needs, threats, and habitat conditions may change at both mid-century and late century. We considered what the Santa Ana speckled dace needs for species viability, and we evaluated the past, current, and future influences that are affecting habitat and demographic needs. Habitat loss, habitat degradation, habitat fragmentation, increased risk of wildfire, nonnative species, climate change, and small population sizes are the threats evaluated in the future scenarios, as they are projected to influence the viability of the Santa Ana speckled dace into the future. None of the threats we identified were insignificant enough to exclude from our future condition evaluation. We applied our future forecasts to the concepts of resiliency, representation, and redundancy to describe the future viability of the Santa Ana speckled dace.

After evaluating the current threats described above, we determined that the Santa Ana speckled dace will likely continue to be impacted by all current identified threats. Because future changes in the global climate have the potential to affect a number of current threats, we developed two plausible future scenarios based on the recommended lower and upper bounds for climate change emissions scenarios, representative concentration pathway (RCP) 4.5 and RCP 8.5 at mid-century

(2030–2059) and late-century (2070–2099) timepoints (Service 2023b, p. 10). We forecast the future scenarios at two timepoints (mid-century and late century) because these time periods are within the range of the available climate change model projections that we used to project changes in stream temperature, stream flow, and fire, and these model projections are considered the best available science (Service 2023a, pp. 15–16). Table 2, below, describes the change in parameters for each of the scenarios compared to the modeled baseline.

These future scenarios examine the same threats identified above under *Current Condition,* including habitat loss, habitat degradation, habitat fragmentation, increased risk of wildfire, nonnative species, small population effects, and climate change (extreme precipitation metrics (10-year flood events), stream flows, and stream temperatures). For area burned, we used the Cal-Adapt boundary selection tool to upload AU shapefiles to aggregate annual hectares burned in each AU (where data were available) for each RCP model. Current threats are predicted to be ongoing based on analysis including climate change models, discussions with species experts and land managers, and review of reports and other literature. Impacts from recreation and other human-related impacts (including maintaining current dams that fragment the habitat) are expected to continue in the future, while all climate models predict the main impacts of climate change will continue through the century. Since invasive species are hard to eradicate, we predict plausible impacts from these species will continue in the future, although management decisions will influence the level of impact to some degree.

For each scenario, we describe the threats that would occur in each analysis unit. We examined resiliency, representation, and redundancy under each of these two plausible scenarios. In this analysis, population resiliency depends on demographic conditions (including distribution size, population size, and connectivity) and the overall amount and quality of habitat that is available. Debris flows caused by heavy precipitation events (primarily wintertime storms that result in flood events), with or without the aggravating impact of wildfire burn scars, are a primary threat that influences resiliency for each analysis unit.

TABLE 2—FUTURE SCENARIO COMPARISON TABLE: CHANGE IN PARAMETERS FROM MODELED BASELINE

Parameter	Scenario 1: RCP4.5		Scenario 2: RCP8.5	
	Mid-century	Late century	Mid-century	Late century
Fire Probability	Slight increase: 1–6% increase.	Slight increase: 2–9% increase.	Increase: 8–13% increase	Significant increase: 12–22% increase.
Fire: Area Burned	Current rate	Current rate	Slight increase	Slight increase.
Mean Summer Stream Flows.	Stable to Slight decline	Stable to Slight decline	Stable to Slight decline	Stable to Slight decline.
Mean Winter Stream Flows	Increase: 1.4–1.7 times higher.	Increase: 1.1–1.4 times higher.	Significant increase: 1.6–2.2 times higher.	Significant increase: 1.8–3.2 times higher.
10-year Flood Events	Increase: 1.1–1.9 times higher.	Slight increase: 1.0–1.5 times higher.	Increase: 1.1–2.5 times higher.	Significant increase: 1.2–3.6 times higher.
August Stream Temperatures.	1 °C increase; Highest temp 24 °C.	1.5 °C increase; Highest temp 24.5 °C.	1.4 °C increase; Highest temp 24.4 °C.	3.4 °C increase; Highest temp 26.4 °C.

Scenario 1

Resiliency—Under Scenario 1, a low-moderate emission scenario (RCP4.5) was used to predict impacts from threats related to climate change (including fire, stream flows, winter precipitation, and stream temperatures; see section 8.1 in the SSA report for more detail) at mid-century and late century. In this scenario, habitat loss, habitat degradation (human recreation activities, mining, roadways, and hydrological modifications and diversions), habitat fragmentation, nonnative species effects, and small population effects continue at the same rate. Impacts from a changing climate are already influencing Santa Ana speckled dace habitat in all analysis units and are projected to increase in the future under RCP4.5, albeit less than under RCP8.5. Based on the climate change projections, impacts from fire (area burned and fire frequency) and precipitation (primarily heavy winter precipitation and 10-year flood events) are predicted to vary based on the analysis unit, but in general the probability of fire and the magnitude of 10-year flood events will increase. Within the Santa Ana River analysis unit, resiliency is projected to slightly increase to moderate by mid-century in both emission scenarios due to a very slight increase (1% increase by mid-century and no change by late century) in fire risk, and the potentially beneficial impacts of higher flows in the absence of fire. As described above, modeled changes in wintertime base flows and the magnitude of 10-year flood events are proxies for changes in extreme precipitation/wintertime storms. Heavy precipitation events, with or without the aggravating impact of wildfire burn scars, have an outsized influence over future debris flows, which are widely acknowledged to lower resiliency of dace by reducing population size and degrading habitat. Resiliency is projected to be similar to current conditions at mid-century but is projected to decrease by late century. The future condition for the four analysis units under Scenario 1 is shown below in tables 3 and 4 for mid-century and late century projections, respectively.

TABLE 3—FUTURE SCENARIO 1 (RCP4.5) MID-CENTURY CONDITION TABLE

Analysis unit	Amount of habitat	Quality of habitat	Dispersal	Size of population	Resiliency
Los Angeles River	Low	Low/Moderate	Low/Moderate	Low	Low.
San Gabriel River	Moderate	Low/Moderate	Moderate	Low/Moderate	Low/Moderate.
Santa Anta River	Moderate	Moderate	Low/Moderate	Moderate	Moderate.

TABLE 3—FUTURE SCENARIO 1 (RCP4.5) MID-CENTURY CONDITION TABLE—Continued

Analysis unit	Amount of habitat	Quality of habitat	Dispersal	Size of population	Resiliency
San Jacinto River	Low	Low/Moderate	Low/Moderate	Low	Low.

TABLE 4—FUTURE SCENARIO 1 (RCP4.5) LATE CENTURY CONDITION TABLE

Analysis unit	Amount of habitat	Quality of habitat	Dispersal	Size of population	Resiliency
Los Angeles River	Low	Low	Low/Moderate	Low	Low.
San Gabriel River	Moderate	Low	Moderate	Low	Low.
Santa Anta River	Moderate	Moderate	Low/Moderate	Moderate	Moderate.
San Jacinto River	Low	Low/Moderate	Low/Moderate	Low	Low.

Representation—In this scenario, adaptive capacity is further reduced from historical levels with impacts to the four analysis units that represent the last remnants of the species' historical range (the headwaters of four river systems). The San Gabriel River analysis unit is projected to become more degraded by the increased risk of fire and high rainfall events, reducing dispersal capacity and evolutionary potential within the current stronghold analysis unit. The Santa Ana River analysis unit has the best chance of maintaining current habitat and population sizes as there is less risk of fire. The least resilient analysis units, the San Jacinto River and Los Angeles River, are likely to remain small due to increased fire risk. In summary, ongoing reductions in habitat quantity, habitat quality, connectivity, and population sizes will continue degrading representation rangewide, contributing to reduced ability to adapt to changing conditions in the future under this scenario.

Redundancy—In this scenario, all four analysis units are projected to remain extant, although reduced resiliency and representation at late century put dace populations at higher risk of extirpation from catastrophic events. Although the distribution is projected to remain spread over four river systems, dace generally occur in the upper tributaries where there is a limited capacity to recover from high consequence events, such as fires, droughts, and debris flows. Two of the analysis units with low resiliency are more at risk of stochastic and catastrophic events, and the loss of either of these would reduce redundancy. The remaining two analysis units are significantly larger and less likely to become extirpated from stochastic or catastrophic events. The magnitude (*i.e.,* flow levels) of 10-year flood events, representing potentially catastrophic events that could extirpate dace occurrences, are 1.1 to 1.9 times higher than baseline 10-year flood events by mid-century (see Service 2023a, appendix D, table D–5, p. 86). In particular, Cajon Creek and the Santa Ana River Mainstem in the Santa Ana River analysis unit are projected to see flooding at 1.5 and 1.9 times baseline flood levels, respectively, placing these occurrences at higher risk of extirpation. By late century, reduced emissions under RCP4.5 lower the magnitude of 10-year flood events to 1.0–1.5 times baseline flood levels, slightly reducing the risk of extirpation due to debris flows caused by storms. Overall, it is unlikely that catastrophic events such as floods and subsequent debris flows would extirpate all current occurrences within an analysis unit, though some are at higher risk than others.

Scenario 2

Resiliency—Under Scenario 2, a high emission scenario (RCP8.5) was used to evaluate impacts from threats related to increased risk of wildfire and climate change (stream flows, winter precipitation, and stream temperatures; see section 8.1 of the SSA report for more detail) at mid-century and late century. In this scenario, habitat loss, habitat degradation (human recreation activities, mining, roadways, and hydrological modifications and diversions), habitat fragmentation, nonnative species effects, and small population effects continue at the same rate. Impacts from a changing climate are already influencing Santa Ana speckled dace in all analysis units, and the future impacts under RCP8.5 will continue to increase. Climate change projections predict increases in the probability of fire and the magnitude of 10-year flood events. As described above, modeled changes in wintertime base flows and the magnitude of 10-year flood events are proxies for changes in extreme precipitation/wintertime storms. Heavy precipitation events, with or without the aggravating impact of wildfire burn scars, have an outsized influence over future debris flows, which are widely acknowledged to lower resiliency of dace by reducing population size and degrading habitat. Under Scenario 2, at mid-century, all populations are projected to be at low resiliency and are more at risk of stochastic events; by late century, two of the analysis units will also be at risk of extirpation. The future conditions for the four analysis units projected under Scenario 2 for mid-century and late century are shown in tables 5 and 6, respectively.

TABLE 5—FUTURE SCENARIO 2 (RCP8.5) MID-CENTURY CONDITION TABLE

Analysis unit	Amount of habitat	Quality of habitat	Dispersal	Size of population	Resiliency
Los Angeles River	Low	Low	Low/Moderate	Low	Low.
San Gabriel River	Moderate	Low	Low/Moderate	Low	Low.
Santa Anta River	Moderate	Low/Moderate	Low/Moderate	Low	Low.
San Jacinto River	Low	Low	Low/Moderate	Low	Low.

TABLE 6—FUTURE SCENARIO 2 (RCP8.5) LATE CENTURY CONDITION TABLE

Analysis unit	Amount of habitat	Quality of habitat	Dispersal	Size of population	Resiliency
Los Angeles River	Low	Low	Low/Moderate	Extirpated	Extirpated.
San Gabriel River	Low/Moderate	Low	Low	Low	Low.
Santa Anta River	Low/Moderate	Low	Low	Low	Low.
San Jacinto River	Low	Low	Low/Moderate	Extirpated	Extirpated.

Representation—In this scenario, due to the heightened threats described in Scenario 2 the trajectory for projected loss of representation relative to historical and current conditions is more severe when compared to Scenario 1. This is driven by the potential extirpation of two of the four AUs, which represent the most southern and most western populations. These extirpations would represent complete loss of evolutionary lineages and occupancy of potentially unique habitats across the species' range. These decreases in the species' range would limit recovery potential as genetic and phenotypic diversity and the corresponding adaptive capacity in these AUs would be permanently lost.

Representation—In this scenario, the extirpation of two AUs by late century and low condition for all AUs at mid-century points to a sharp drop in redundancy across the species' range. In addition to reductions in resiliency, all AUs face elevated risks from high magnitude 10-year flood events at both mid and late-century, which correlates to higher risk of debris flows. In particular, all eight current occurrences within the Santa Ana AU will see 10-year flood events that are 1.4–2.5 times baseline flood levels at mid-century, placing the entire AU at risk from catastrophic debris flow events from extreme precipitation events. By late century, the magnitude of 10-year flood events is 1.2–3.6 times baseline flood flows rangewide, with almost all occurrences facing significantly higher 10-year flood levels, elevating AU-wide extirpation risks. Combined with reduced resiliency, these increases in potentially catastrophic flood events (and resulting debris flows from storms) indicate that at least two AUs are likely to be extirpated under Scenario 2 by late-century.

Summary of Future Condition

Future scenarios for the Santa Ana speckled dace point to conditions that will further degrade the viability of the species. Under a low to moderate emissions climate change scenario (Scenario 1, RCP4.5), one of the four analysis units (Santa Ana River) will have moderate resiliency given stochastic environmental and demographic disturbances through late century. Low resiliency across the remainder of the range will contribute to ongoing reductions in adaptive capacity and place populations at high risk of extirpation from catastrophic events due to limited capacity to respond and recover from high consequence events, including increased fire and debris flows. Under a higher emissions climate change scenario (Scenario 2, RCP8.5), two analysis units are projected to be extirpated by late century, with the remaining two units in low condition. All units will face elevated risks of extirpation from high-magnitude flood events. Losses of redundancy and representation rangewide, including the extirpation of two analysis units, will dramatically reduce overall species viability. Overall, future species resiliency is projected to be low, representation will become limited, and reduced redundancy will place the species at high risk from catastrophic events. Thus, the Santa Ana speckled dace will have less capacity to sustain populations in the wild in the future, reducing viability and elevating extinction risk. Table 7, below, describes the comparison between current condition and future condition for the species.

TABLE 7—CURRENT AND FUTURE CONDITION CATEGORY COMPARISON TABLE

Analysis unit	Current	Mid-century future scenario 1	Mid-century future scenario 2	Late century future scenario 1	Late century future scenario 2
Los Angeles River	Low	Low	Low	Low	Extirpated.
San Gabriel River	Moderate	Low/Moderate	Low	Low	Low.
Santa Anta River	Low/Moderate	Moderate	Low	Moderate	Low.
San Jacinto River	Low	Low	Low	Low	Extirpated.

Determination of Santa Ana Speckled Dace's 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 an endangered species or a threatened species. The Act defines an ''endangered species'' as a species in danger of extinction throughout all or a significant portion of its range, and a ''threatened species'' as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of an endangered species or a threatened species because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

Status Throughout All of Its Range

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we found that habitat loss, habitat degradation, and habitat fragmentation (all Factor A) are the most substantial threats to the species' viability. Within the foreseeable future, we anticipate that heavier debris flows pose the greatest future threat to the Santa Ana speckled dace's viability. Increased debris flows, driven by an increase in heavy rainfall and wildfire, are projected to impact habitat quality

and lead to future loss of habitat, particularly by late century. Effects from climate change are also projected to increase the probability of fire and affect habitat quality by raising water temperatures in summer and winter. We also considered the effects of nonnative species and the effects of small population size for their cumulative effects.

Given the presence of 17 populations across the four AUs that comprise the range of the Santa Ana speckled dace, and their general stability in terms of occurrence (detectability) and reproduction, the species is able to maintain its current resiliency. Historical constraints on dispersal capacity, evolutionary potential, and plasticity have reduced representation for the Santa Ana speckled dace. However, despite historical losses across the range, the species is currently extant among 17 occurrences, occupying 76 stream miles across four river systems. Having multiple populations provides redundancy against large catastrophic events, and it is unlikely that a single event would cause extinction across the species' range. When connectivity is still intact, populations have shown the ability to naturally recolonize areas affected by catastrophic events, which indicates that there is still some level of redundancy within populations (including the 2020 Bobcat Fire which impacted both the West Fork San Gabriel River and Bear Creek). Salvage efforts are also utilized to boost resiliency after flooding.

Santa Ana speckled dace populations are currently stable and reproducing, albeit at relatively low numbers. Small, isolated populations with reduced genetic diversity may magnify risk from demographic and environmental stochasticity. Lack of connectivity and limited habitat availability also reduce the ability of populations to shift in space in response to environmental change. However, the species shows resiliency in response to periodic disturbance, and fish are consistently found in the river systems they occupy. In addition, survey data indicate that in spite of multi-decadal threats and impacts, the species still occupies populations across its range. Furthermore, with four analysis units that have low to moderate resiliency, it is likely that the species will withstand stochastic events under current conditions. Given the current levels of resiliency, representation, and redundancy of the Santa Ana speckled dace across its range, and the relative stability the species maintains within each analysis unit, we conclude that the species is not currently in danger of extinction throughout all of its range.

We next considered whether the Santa Ana speckled dace is likely to become in danger of extinction within the foreseeable future throughout all of its range. In considering the foreseeable future for the species, we analyzed expected changes in habitat availability, habitat degradation, habitat fragmentation, increased risk of wildfire, presence of nonnative species, climate change, and small population sizes to mid-century (2030–2059) and late-century (2070–2099) timepoints (Service 2023a, pp. 35–46). We determined that these timeframes represent periods for which we can make reasonably reliable predictions about both the threats to the species and the species' response to those threats.

Under a low to moderate emissions climate change scenario (Scenario 1, RCP4.5), resiliency at mid-century will be similar to current conditions, remaining low to moderate across the four analysis units. Representation and redundancy will also be comparable to current conditions. Because of similar conditions in Scenario 1, the Santa Ana speckled dace's viability at mid-century is not expected to change from its current level. However, there is still uncertainty about the level of impact that debris flows and a generally increased risk of wildfire might have on habitat quality amid changing climate conditions. Under a higher emissions climate change scenario (Scenario 2, RCP8.5), all four analysis units are projected to have low resiliency by mid-century, putting them all at risk of extirpation from stochastic events. Representation is also projected to be diminished, making it harder for the Santa Ana speckled dace to adapt and recover from adverse conditions. Redundancy is also reduced from current condition, increasing the likelihood of extirpation. Overall, the Santa Ana speckled dace will experience ongoing declines due to primary threats, and a reduced overall capacity to sustain populations in the wild into the future, substantially reducing viability and elevating extinction risk. Secondary threats, while not influencing viability in significant ways currently, could have more pronounced adverse effects given continuous declines in future condition. Thus, after assessing the best available information, we conclude that the Santa Ana speckled dace 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 within the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity* v. *Everson,* 435 F. Supp. 3d 69 (D.D.C. 2020) (*Everson*), vacated the provision of the Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (hereafter ''Final Policy''; 79 FR 37578, July 1, 2014) that provided if the Service determines that a species is threatened throughout all of its range, the Service will not analyze whether the species is endangered in a significant portion 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 *Everson,* we now consider whether the species is in danger of extinction in a significant portion of its range. In undertaking this analysis for the Santa Ana speckled dace, we choose to address the status question first.

We evaluated the range of the Santa Ana speckled dace to determine if the species is currently in danger of extinction in any portion of its range. The range of a species can theoretically be divided into portions in an infinite number of ways. We focused our analysis on portions of the species' range that may meet the Act's definition of an endangered species. For the Santa Ana speckled dace, we considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is currently in danger of extinction in that portion. For our analysis, we examined the following threats: habitat loss, habitat degradation, habitat fragmentation, increased risk of wildfire, changing climate trends,

nonnative species, and small population effects.

While threats that may impact the Santa Ana speckled dace are not concentrated in any geographic areas within the range, our analysis indicated that two analysis units within the range may be more vulnerable to extirpation than the other two. The Los Angeles River analysis unit is a smaller unit with two occupied Santa Ana speckled dace occurrences. While these occurrences are connected, the analysis unit has limited available habitat, degraded habitat quality, and consistently low abundance estimates. The amount of available habitat within this unit, with 15 miles of occupied habitat, was rated as low because there are less than 20 stream miles of occupied habitat that does not require some form of management to maintain. Habitat quality within the analysis unit was rated as low to moderate because some of the essential features, including habitat free of nonnative species, adequate flows, appropriate water quality, and proper substrate, are degraded.

The San Jacinto River analysis unit is the smallest and least surveyed of the analysis units, occurring mostly within Tribal lands. Occurrences within this analysis unit are not influenced by high levels of human impact (*e.g.,* urbanization). Instead, impacts from drought, fire, and debris flows are the main threats affecting resiliency in this analysis unit. Nonnative species are present in the North and South Forks of the San Jacinto River, which may have contributed to the possible extirpation of Santa Ana speckled dace from these sites. The analysis unit has 2.8 miles of occupied habitat, which again rates as low because there are less than 20 stream miles of occupied habitat, with one known occupied occurrence. Other occurrences were reported as extant in the recent past but are now possibly extirpated even though these areas are still considered suitable. Habitat quality within the analysis unit was rated as low to moderate because some of the essential features, including habitat free of nonnative species and adequate flows, are degraded. Connectivity is considered low to moderate because the one extant occurrence is connected to historically occupied habitat that could become occupied again in the future, making dispersal possible between these areas. Size of population was rated as low due to only one known extant occurrence with flows becoming very small during dry conditions, limiting dace abundance within the analysis unit.

Because of the current condition due to the threats described above, we determined these portions may have a different status than the rest of the range and then considered whether these portions may be significant. Collectively, the Los Angeles River analysis unit and the San Jacinto River analysis unit account for 3 of 17 (17.6 percent) of occurrences, and account for 23.5 percent of occupied river miles within the range of the Santa Ana speckled dace. Therefore, together these portions collectively comprise only about 18 percent of overall Santa Ana speckled dace occurrences and account for less than 25 percent of total river miles within the species' range. The San Jacinto River analysis unit is spatially disjunct and may have unique genetic alleles within the range of the species, because of its location mostly within Tribal lands that do not experience the effects of human activities such as urbanization or recreation. However, both analysis units have relatively lower habitat quality compared to the other two analysis units. Thus, the Los Angeles River analysis unit and the San Jacinto River analysis unit do not constitute a large geographic area relative to the other two analysis units, nor do we find them to be individually or collectively significant. We found no other biologically meaningful portions of the Santa Ana speckled dace's range where the biological condition of the species may differ from its condition elsewhere in its range such that the status of the species in that portion may differ from any other portion of the species' range.

Therefore, no portion of the species' range provides a basis for determining that the species is currently 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 does not conflict with the courts' holdings in *Desert Survivors* v. *U.S. Department of the Interior,* 321 F. Supp. 3d 1011, 1070–74 (N.D. Cal. 2018) and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not apply the aspects of the Final Policy, including the definition of ''significant'' that those court decisions held to be invalid.

Determination of Status

Our review of the best available scientific and commercial information indicates that the Santa Ana speckled dace meets the Act's definition of a threatened species. Therefore, we propose to list the Santa Ana speckled dace as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Available Conservation Measures

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

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

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

recovery tasks. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery outline, draft recovery plan, final recovery plan, and any revisions will be available on our website as they are completed (*https://www.fws.gov/program/endangered-species*), or from our Carlsbad Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

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

If this species is listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State of California would be eligible for Federal funds to implement management actions that promote the protection or recovery of the Santa Ana speckled dace. Information on our grant programs that are available to aid species recovery can be found at: *https://www.fws.gov/service/financial-assistance*.

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

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

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

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

Examples of discretionary actions for the Santa Ana speckled dace that may be subject to conference and consultation procedures under section 7 are land management or other landscape-altering activities on Federal lands administered by the U.S. Forest Service and the U.S. Army Corps of Engineers, as well as actions on State, Tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat—and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency—do not require section 7 consultation. Federal agencies should coordinate with the local Service Field Office (see **FOR FURTHER INFORMATION CONTACT**, above) with any specific questions on section 7 consultation and conference requirements.

II. Protective Regulations Under Section 4(d) of the Act for the Santa Ana Speckled Dace

Background

Section 4(d) of the Act contains two sentences. The first sentence states that the Secretary shall issue such regulations as she deems necessary and advisable to provide for the conservation of species listed as threatened species. 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. With these two sentences in section 4(d), Congress delegated broad authority to the Secretary to determine what protections would be necessary and advisable to provide for the conservation of threatened species, and even broader authority to put in place any of the section 9 prohibitions for a given species.

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, as a valid exercise of agency authority, rules developed under section 4(d) that included limited prohibitions against takings (see *Alsea Valley Alliance* v. *Lautenbacher,* 2007 WL 2344927 (D. Or. 2007); *Washington Environmental Council* v. *National Marine Fisheries Service,* 2002 WL 511479 (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 [her] with regard to the permitted activities for those species.

[She] may, for example, permit taking, but not importation of such species, or [she] 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).

The provisions of this species' proposed protective regulations under section 4(d) of the Act are one of many tools that we would use to promote the conservation of the Santa Ana speckled dace. The proposed protective regulations would apply only if and when we make final the listing of the Santa Ana speckled dace as a threatened species. Nothing in 4(d) rules 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 Santa Ana speckled dace. As mentioned previously in Available Conservation Measures, section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, even before the listing of any species or the designation of its critical habitat is finalized, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. These requirements are the same for a threatened species regardless of what is included in its 4(d) rule.

Section 7 consultation is required for Federal actions that ''may affect'' a listed species regardless of whether take caused by the activity is prohibited or excepted by a 4(d) rule (''blanket rule'' or species-specific 4(d) rule). A 4(d) rule does not change the process and criteria for informal or formal consultations and does not alter the analytical process used for biological opinions or concurrence letters. For example, as with an endangered species, if a Federal agency determines that an action is ''not likely to adversely affect'' a threatened species, this will require the Service's written concurrence (50 CFR 402.13(c)). Similarly, if a Federal agency determinates that an action is ''likely to adversely affect'' a threatened species, the action will require formal consultation with the Service and the formulation of a biological opinion (50 CFR 402.14(a)). Because consultation obligations and processes are unaffected by 4(d) rules, we may consider developing tools to streamline future intra-Service and inter-Agency consultations for actions that result in forms of take that are not prohibited by the 4(d) rule (but that still require consultation). These tools may include consultation guidance, Information for Planning and Consultation effects determination keys, template language for biological opinions, or programmatic consultations.

Provisions of the Proposed 4(d) Rule for the Santa Ana Speckled Dace

Exercising the Secretary's authority under section 4(d) of the Act, we have developed a proposed rule that is designed to address the Santa Ana speckled dace's conservation needs. As discussed above under Summary of Biological Status and Threats, we have concluded that the Santa Ana speckled dace is likely to become in danger of extinction within the foreseeable future primarily due to impacts to habitat, wildfire, climate change, nonnative species, and effects of small population size. Section 4(d) requires the Secretary to issue such regulations as she deems necessary and advisable to provide for the conservation of each threatened species and authorizes the Secretary to include among those protective regulations any of the prohibitions that section 9(a)(1) of the Act prescribes for endangered species. We are not required to make a ''necessary and advisable'' determination when we apply or do not apply specific section 9 prohibitions to a threatened species (In re: Polar Bear Endangered Species Act Listing and 4(d) Rule Litigation, 818 F. Supp. 2d 214, 228 (D.D.C. 2011) (citing *Sweet Home Chapter of Cmtys. for a Great Or.* v. *Babbitt,* 1 F.3d 1, 8 (D.C. Cir. 1993), *rev'd on other grounds,* 515 U.S. 687 (1995))). Nevertheless, even though we are not required to make such a determination, we have chosen to be as transparent as possible and explain below why we find that, if finalized, the protections, prohibitions, and exceptions in this proposed rule as a whole satisfy the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the Santa Ana speckled dace.

The protective regulations we are proposing for the Santa Ana speckled dace incorporate prohibitions from section 9(a)(1) of the Act to address the threats to the species. The prohibitions of section 9(a)(1) of the Act, and implementing regulations codified at 50 CFR 17.21, make it illegal for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit or to cause to be committed any of the following acts with regard to any endangered wildlife: (1) import into, or export from, the United States; (2) take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect) within the United States, within the territorial sea of the United States, or on the high seas; (3) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such wildlife that has been taken illegally; (4) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of commercial activity; or (5) sell or offer for sale in interstate or foreign commerce. This proposed protective regulation includes all of these prohibitions because the Santa Ana speckled dace is at risk of extinction within the foreseeable future and putting these prohibitions in place will help to prevent further declines, preserve the species' remaining populations, slow its rate of decline, and decrease synergistic, negative effects from other ongoing or future threats.

In particular, this proposed 4(d) rule would provide for the conservation of the Santa Ana speckled dace by prohibiting the following activities, unless they fall within specific exceptions or are otherwise authorized or permitted: importing or exporting; take; possession and other acts with unlawfully taken specimens; delivering, receiving, carrying, 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.

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 regulations at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Regulating take would help preserve the species' remaining populations, slow their rate of decline, and decrease cumulative effects from other ongoing or future threats. Therefore, we propose to prohibit take of the Santa Ana speckled dace, except for take resulting from those actions and activities specifically excepted by the 4(d) rule.

Exceptions to the prohibition on take would include all the general exceptions to the prohibition on take of endangered wildlife, as set forth in 50

CFR 17.21, and additional exceptions, as described below.

Despite these prohibitions regarding threatened species, we may under certain circumstances issue permits to carry out one or more otherwise-prohibited activities, including those described above. The regulations that govern permits for threatened wildlife state that the Director may issue a permit authorizing any activity otherwise prohibited with regard to threatened species. These include permits issued for the following purposes: for 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 (50 CFR 17.32). The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

In addition, to further the conservation of the species, any employee or agent of the Service, any other Federal land management agency, the National Marine Fisheries Service, a State conservation agency, or a federally recognized Tribe, who is designated by their agency or Tribe for such purposes, may, when acting in the course of their official duties, take threatened wildlife without a permit if such action is necessary to: (i) Aid a sick, injured, or orphaned specimen; or (ii) Dispose of a dead specimen; or (iii) Salvage a dead specimen that may be useful for scientific study; or (iv) Remove specimens that constitute a demonstrable but nonimmediate threat to human safety, provided that the taking is done in a humane manner; the taking may involve killing or injuring only if it has not been reasonably possible to eliminate such threat by live capturing and releasing the specimen unharmed, in an appropriate area.

We recognize the special and unique relationship that we have 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 us in implementing all aspects of the Act. In this regard, section 6 of the Act provides that we must 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 us 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 the Santa Ana speckled dace that may result in otherwise prohibited take without additional authorization.

The proposed 4(d) rule would also provide for the conservation of the species by allowing exceptions that incentivize conservation actions or that, while they may have some minimal level of take of the Santa Ana speckled dace, are not expected to rise to the level that would have a negative impact (*i.e.,* would have only de minimis impacts) on the species' conservation. The proposed exceptions to the 4(d) rule's prohibitions include incidental take caused by: (1) forest or wildland management activities that are intended to minimize negative impacts from forest management rangewide, including activities conducted to maintain the minimum clearance (defensible space) requirement from structures to reduce wildfire risks consistent with State fire codes or local fire codes or ordinances; (2) habitat restoration and enhancement activities conducted as part of nonpermitted Federal or State habitat restoration plans that are for the benefit of the Santa Ana speckled dace or its habitat; and (3) removal of nonnative species (including removal of invasive, nonnative plants and aquatic predators) for the benefit of the Santa Ana speckled dace and its habitat. These proposed exceptions, as discussed below, are expected to have negligible or beneficial impacts to the Santa Ana speckled dace and its habitat.

Proposed Species-Specific Incidental Take Exceptions

We propose to except from the take prohibitions in the 4(d) rule those forest or wildland management activities that are intended to minimize negative impacts from forest management rangewide. Since the listing of the Santa Ana sucker (*Catostomus santaanae;* see 65 FR 19686, April 12, 2000), a co-occurring species with the Santa Ana speckled dace, the U.S. Forest Service has adopted additional guidance and proposals to protect the Santa Ana sucker, and effects of management plans are expected to also result in beneficial conservation effects for the Santa Ana speckled dace. These excepted activities would include activities specifically conducted to maintain the defensible space requirement from structures; are intended to reduce wildfire risk, which would protect Santa Ana speckled dace habitat; and would provide enhanced public safety against fires.

We also propose to except from the take prohibitions in the 4(d) rule those habitat restoration and enhancement activities that include, but are not limited to, trash removal, removal of recreational dams, restoration of waterways from recreational mining, and dam operations that are beneficial to the Santa Ana speckled dace as outlined in a Service-approved plan (*e.g.,* a conservation plan developed in coordination with the Service where take has not been covered but where activities would lead to net conservation benefits for the Santa Ana speckled dace). Such measures would be implemented to minimize impacts to the Santa Ana speckled dace and its habitat, and are expected to result in the restoration and enhancement of habitat quality features such as natural stream flow, sediment transport, stream morphology, and water quality within the species' range.

In addition, we propose to except from the take prohibitions in the 4(d) rule the removal of nonnative species, including noxious weed control and other vegetation reduction in the course of habitat management and restoration to benefit the Santa Ana speckled dace. Activities may include mechanical and chemical control, provided these activities are conducted in a manner consistent with Federal and applicable State laws. Activities may also include removal or eradication of nonnative animal species, including, but not limited to, catfish, bass, crayfish, and bullfrogs. The use of electrofishing for eradication of predators would have to be approved by the Service prior to being implemented.

III. Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as: The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the

Secretary (*i.e.,* range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.,* migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

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

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

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

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

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

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

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions set forth in the 4(d) rule. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of the species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available at the time of those planning efforts calls for a different outcome.

Critical Habitat Determinability

Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Data sufficient to perform required analyses are lacking, or

(ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of ''critical habitat.''

We reviewed the available information pertaining to the biological needs of the Santa Ana speckled dace and habitat characteristics where this species is located. A careful assessment of the economic impacts that may occur due to a critical habitat designation is still ongoing, and we are in the process of acquiring the complex information needed to perform that assessment. Therefore, due to the current lack of data sufficient to perform required analyses, we conclude that the designation of critical habitat for the Santa Ana speckled dace is not

determinable at this time. The Act allows the Service an additional year to publish a critical habitat designation that is not determinable at the time of listing (16 U.S.C. 1533(b)(6)(C)(ii)).

Required Determinations

Clarity of the Proposed Rule

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

(1) Be logically organized;

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

(3) Use clear language rather than jargon;

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

(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise this rulemaking, 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 (42 U.S.C. 4321 et seq.)

Regulations adopted pursuant to section 4(a) of the Act are exempt from the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) and do not require an environmental analysis under NEPA. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This includes listing, delisting, and reclassification rules, as well as critical habitat designations and species-specific protective regulations promulgated concurrently with a decision to list or reclassify a species as threatened. The courts have upheld this position (*e.g., Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995) (critical habitat); *Center for Biological Diversity* v. *U.S. Fish and Wildlife Service,* 2005 WL 2000928 (N.D. Cal. Aug. 19, 2005) (concurrent 4(d) rule)).

Government-to-Government Relationship With Tribes

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

References Cited

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

Authors

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

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, FWS proposes to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

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

■ 2. In § 17.11, amend the table in paragraph (h) by adding an entry for ''Dace, Santa Ana speckled'' to the List of Endangered and Threatened Wildlife in alphabetical order under FISHES to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
*	*	*	*	*
FISHES				
*	*	*	*	*
Dace, Santa Ana speckled	Rhinichthys gabrielino	Wherever found	T	[**Federal Register** citation when published as a final rule]; 50 CFR 17.44(ll).[4d]
*	*	*	*	*

■ 3. Further amend § 17.44, as proposed to be amended at 88 FR 88338 (December 21, 2023), by adding and reserving paragraphs (jj) and (kk), and adding paragraph (ll) to read as follows:

§ 17.44 Special rules—fishes.

* * * * *

(jj)–(kk) [Reserved]

(ll) Santa Ana speckled dace (*Rhinichthys gabrielino*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to the Santa Ana speckled dace. Except as provided under paragraph (ll)(2) 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) *Exceptions from prohibitions.* In regard to this species, you may:

(i) Conduct activities as authorized by a permit under § 17.32.

(ii) Take, as set forth at § 17.21(c)(3) and (4) for endangered wildlife.

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

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

(v) Take incidental to an otherwise lawful activity caused by:

(A) Forest or wildland management activities that are intended to minimize negative impacts from forest management rangewide, including activities specifically conducted to maintain the defensible space requirement from structures.

(B) Habitat restoration and enhancement activities, including, but not limited to, trash removal, removal of recreational dams, restoration of waterways from recreational mining, and dam operations that are beneficial to the Santa Ana speckled dace. Such measures must be implemented in accordance with a conservation plan developed in coordination with the Service; must minimize impacts to the Santa Ana speckled dace and its habitat; and should result in the restoration and enhancement of habitat features such as natural stream flow, sediment transport, stream morphology, and water quality within the species' range.

(C) Removal of nonnative species, including noxious weed control and other vegetation reduction, in the course of habitat management and restoration to benefit the Santa Ana speckled dace. Activities may include mechanical and chemical control, provided these activities are conducted in a manner consistent with Federal and applicable State laws. Activities may also include removal or eradication of nonnative animal species, including, but not limited to, catfish, bass, crayfish, and bullfrogs; however, the Service must approve the use of electrofishing for eradication of predators prior to implementation.

Martha Williams,

Director, U.S. Fish and Wildlife Service.

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