



Meeting: **Joint Reservoir Committee & Authority Board**  
**Agenda Item 3.2**

**March 18, 2022**

Subject: **Biological Assessment Update**

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**Requested Action:**

Receive an update on the status of the Federal Endangered Species Act (ESA) Biological Assessment for the Project's construction components.

**Detailed Description/Background:**

***Process Information***

Reclamation is the lead federal agency for the Project's Biological Assessment and will complete its ESA compliance responsibilities prior to issuing a Record of Decision under the National Environmental Policy Act.

The Project team is preparing the Biological Assessment in coordination with Reclamation, and once complete, Reclamation will review, finalize and submit the Biological Assessment to the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). The team has conducted numerous meetings with the regulatory agencies on the "rightsized" project to identify areas of concern to ensure they are addressed in the submitted materials and the design of the Project. The federal agencies will review the Biological Assessment, including the analysis in the document, and are anticipated to issue separate Biological Opinions and Incidental Take Statements for the Project. Under statute, the federal agencies have 135 days after determining the Biological Assessment complete to issue a Biological Opinion.

Staff has advanced development of the Biological Assessment with a focus on the effects to federally-listed terrestrial species that could result from the construction of the Project. The aquatic/operations effects analysis is awaiting revised modeling and will be discussed at a future meeting. Both construction and operations will be addressed in the Biological Assessment. The Authority expects 2 Biological Opinions (one each from USFWS and NMFS) with each Biological Opinion addressing both construction and operations for the species under the respective agencies' jurisdiction (terrestrial and freshwater fish for USFWS and marine and anadromous fish for NMFS).

## ***Approach to Assessing Suitable Habitat***

As the Project Area has not recently undergone biological and botanical surveys<sup>1</sup> due to lack of access to private land, aerial interpretation of landcover combined with known species occurrences contained in the California Natural Diversity Database (CNDDDB) was used to identify potentially suitable habitat for federally-listed species. Suitable habitat was defined through the development of species habitat models with Reclamation, USFWS, ICF biologists and staff. These species models identify specific habitat characteristics and requirements that must be present for any specific landcover to be considered “potentially suitable habitat” for a particular species. Any landcover that was determined to be potentially suitable habitat for a species was assumed to be occupied by the corresponding species as surveys could not be performed to verify presence or absence. This assumption will be verified once access to the Project Area has been obtained and focused biological and botanical surveys are performed to verify presence or absence. As a result, the Project’s effects to these species and their habitat, as well as the corresponding compensatory mitigation identified in the Biological Assessment are conservative and likely overestimated. Prior to implementing any compensatory mitigation, focused biological and botanical surveys will be conducted and the results used to refine effects and compensatory mitigation requirements of the Project. The Biological Assessment will be specific about this approach and the preliminary estimates reflected will be adjusted based on biological and botanical surveys.

## ***ESA Determinations***

ESA requires Reclamation to determine and state the potential impact of a project on each species potentially affected by the project. For the Sites Project, these determinations will not be officially made until the Authority drafts the Biological Assessment and Reclamation has finished its review of the Biological Assessment and submitted it to the USFWS and NMFS. The information provided below is a preliminary assessment of each species and may change as the analysis is further developed and the Biological Assessment is completed and submitted.

Based on species lists provided by the USFWS, 21 federally listed species were considered for inclusion in the Biological Assessment. The species habitat modeling and landcover present in the Project area indicate that 15 of these species have the potential to occur in the Project Area. Of these 15 species, six are associated with the construction components of the Project and three species are not likely to be affected by the Project (the remaining six are aquatic species that will be covered in a future report).

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<sup>1</sup> Biological surveys were conducted of the majority of the reservoir footprint in the early 2000s. These surveys provide baseline information for our current efforts. However, as these previous surveys are now nearing or over 20 years old, they are useful information but the regulations do not allow these reports to be relied upon for issuance of take permits.

Table 1 provides the conservatively estimated amounts of potential habitat present within the Project Area for each of the six species, based on aerial imagery and CNDDDB occurrences. The actual amounts of occupied habitat and the acreage impacted will be determined during surveys prior to Project construction. Temporary impacts and associated take will also be included in the Biological Assessment as well.

**Table 1: Preliminary Estimated Habitat for Federally Listed Species with the Potential to Occur in the Project Area**

<b>USFWS-Managed Species</b>	<b>Conservatively Estimated Habitat</b>
Conservancy fairy shrimp	Up to 240 acres <sup>1</sup>
Vernal pool fairy shrimp	Up to 240 acres <sup>1</sup>
Vernal pool tadpole shrimp	Up to 240 acres <sup>1</sup>
Valley elderberry longhorn beetle	Up to 250 shrubs
California red-legged frog	Up to 287 acres of modeled aquatic habitat and 6,765 acres of modeled upland habitat
Giant garter snake	Up to 2 acres of aquatic habitat and 27 acres of upland habitat
<p>Note: Estimated effects based on aerial imagery and CNDDDB occurrences and expected to be a conservative estimate. Actual amounts of permanent and temporary impacts will be determined during surveys prior to Project construction.</p> <p>1. This is the same 240 acres as it could be potential habitat for any or all of these three vernal pool species.</p>	

The three species not likely to be affected by the Project include Keck’s checkermallow, Palmate-bracted bird’s beak, and Western yellow-billed cuckoo. No take under ESA is being requested for Keck’s checkermallow and palmate-bracted bird’s beak as these species’ extreme rarity and lack of recorded occurrences from the immediate Project vicinity make ESA take not anticipated. However, the draft Biological Assessment includes a conservation measure that would require surveys for these species prior to Project construction. Reinitiation of consultation would be required if the species is found and impacts to the species cannot be avoided. No take under ESA is being requested for Western yellow-billed cuckoo as the changes in flows in the Sacramento River are minor, within historical ranges, and not expected to adversely affect this species.

Giant garter snake is the only species in Table 1 that is both federally and state listed. The estimated acres in Table 1 are the same for giant garter snake in the Biological Assessment and the Construction ITP application.

California red-legged frog habitat continues to be discussed with the USFWS and Reclamation. Through these discussions the suitable modeled habitat identified in Table 1 has been reduced from a previous estimate of 513 acres of aquatic habitat and 6,826 upland habitat, a reduction of 44% and 1% respectively. Further refinements will be made as the permitting process continues and focused biological surveys are conducted to verify the presence or absence of this species in the Project area. As the previous surveys in portions of the Project area were performed by CDFW for the California Department of Water Resources from 1997 to 1999 did not detect the frog, and as there are no contemporary recorded occurrences within or near the Project Area, staff anticipate continued reductions in suitable habitat. Also, the proposed approach continues to reflect the absence of suitable habitat in Funks Reservoir.

### ***Mitigation Requirements***

The Project will implement several conservation measures to avoid and reduce potential take of listed species as well as implement compensatory mitigation to offset the Project's direct and indirect effects to the species. Compensatory mitigation will be primarily accomplished by procurement of existing off-site occupied habitat acquired in-fee, acquisition of conservation easements, or by purchasing credits from a certified conservation bank or mitigation bank. Mitigation within the Project Area would be done on an opportunistic basis but is anticipated to be limited due to most Project lands being used for other Project purposes.

Similar to the Construction ITP application, the Authority intends to stack mitigation to the extent possible. For example, the Authority would intend to mitigate for all of the vernal pool species under Federal ESA and for the loss of the vernal pools under the Clean Water Act in the same area/same property. Mitigation for giant garter snake, the species listed under both federal and state law, would be coordinated with both USFWS and CDFW to ensure that the mitigation satisfies the requirements for both the Project's future Biological Opinion and future Construction ITP.

### **Prior Action:**

September 2021: Receive an update on the status of resolution of discussions with the Bureau of Reclamation on how Project operations will be addressed in the Biological Assessment.

July 2021: Received update on the status of permitting activities as compared against the Amendment 2 Work Plan.

### **Fiscal Impact/Funding Source:**

Efforts on the Biological Assessment are covered in the Amendment 3 Work Plan and the current efforts are anticipated to remain within the budget in the Work

Plan. Staff continues to work through appropriate mitigation ratios with Reclamation. Once proposed mitigation ratios are developed, staff will assess these as compared to the current Project cost estimate.

**Staff Contact:**

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**Primary Service Provider:**

ICF and HDR

**Attachments:**

None