

ATTACHMENT A

EXHIBIT E SUPPLEMENTAL TEXT

INTRODUCTION TO EXHIBIT E SUPPLEMENTAL TEXT¹

*On March 28, 2022, PacifiCorp filed an application for a new license for the Cutler Hydroelectric Project, Federal Energy Regulatory Commission (FERC) Project No. 2420 (Project). FERC staff identified the need for additional information after having queried the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database to generate an updated list of threatened and endangered species within the Project's Vicinity, which included the monarch butterfly (*Danaus plexippus*), a Candidate species. As Candidate species are not required to be evaluated as part of FERC's National Environmental Policy Act environmental analysis for the purposes of granting a new license, PacifiCorp did not include such evaluation in their application for a new license. In response to FERC's Additional Information Request received April 22, 2022, PacifiCorp is providing that information below as a supplement to the Exhibit E (Environmental Report) of the Final License Application. The information provided below is organized using the same numbered headings as Exhibit E of the Final License Application.*

3.3.8 THREATENED AND ENDANGERED SPECIES

3.3.8.1 AFFECTED ENVIRONMENT

The USFWS Information for Planning and Conservation (IPaC) tool for Cache and Box Elder counties identifies five federally listed species that could potentially occur in the Project Vicinity, all of which are listed as threatened (USFWS 2021; Table 3-26). Only one species, a plant, has suitable habitat and documented occurrences within the Project Boundary: the Ute ladies'-tresses orchid (*Spiranthes diluvialis*). There is no suitable habitat within the Project Boundary for the remaining four federally listed species (Canada lynx [*Lynx canadensis*], yellow-billed cuckoo [*Coccyzus americanus*], Lahontan cutthroat trout [*Oncorhynchus clarkii henshawi*], and Maguire primrose [*Primula maguirei*]), and their presence within the Project Boundary is highly unlikely. Therefore, the Ute ladies'-tresses is the only T&E species further discussed in this section.

¹ *Italicized font* indicates new response-to-AIR supplemental text to Exhibit E of the Final License Application. Non-italicized font indicates existing text found under the corresponding header from the Exhibit E of the FLA.

There is no USFWS-designated Critical Habitat in the Project Vicinity (USFWS 2021). Critical Habitat is proposed for western yellow-billed cuckoo in Utah outside of the Project Vicinity, along the Duchesne and Green rivers in Uintah and Duchesne counties, and along the Green River in Grand and Emery counties (Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo, 85 Fed. Reg. 39 [February 27, 2020]). There is also no EFH designated in the Project Vicinity.

As noted above, the USFWS IPaC database identified one candidate species for Cache and Box Elder counties, the monarch butterfly, that could potentially have suitable habitat in the Project Vicinity. Candidate species are those for which the USFWS has enough biological status information to potentially propose as endangered or threatened under the Endangered Species Act (ESA). The USFWS encourages protective measures for these species; however, Candidate species do not receive statutory protection under the ESA (USFWS 2017). It is possible, however, that within the term of the Project license, the monarch butterfly may be moved from a candidate species to a threatened or endangered species. Therefore, impacts on the potentially suitable habitat for monarch butterfly will be addressed within the Project Vicinity.

MONARCH BUTTERFLY

*Monarch butterfly populations have been rapidly decreasing due to the loss of breeding/egg-laying habitat throughout migration (USFWS 2021). Adult habitat can occur in a range of ecosystems with flowering plants; however, the presence of milkweed is crucial for breeding/egg-laying throughout migration. Monarch butterflies feed on nectar from flowering plants throughout their adult life. However, milkweed plants, especially common milkweed (*Asclepias syriaca*) and swamp milkweed (*Asclepias incarnata*) in northern Utah, are the only plants suitable for monarch butterflies to lay eggs on (U.S. Department of Agriculture [USDA 2018]). Monarch larvae must consume milkweed to obtain toxins that will act as their defense from predators (USFWS 2021). Milkweed plants have disappeared throughout large portions of their range rapidly since the 1990s after seed companies produced, and farmers began to widely use, herbicide-tolerant crops.*

Grazing, agriculture, and weed control within portions of the Project Boundary are incompatible with milkweed presence. Milkweed is toxic to cattle, and when eaten by livestock, the outcome can be fatal (USDA 2018). However, there is potential for monarch butterfly breeding habitat within the Project Boundary because milkweeds have been observed in the Project Area and the surrounding area (E. Davies, personal communication, May 11, 2022). Most of the potential breeding habitat within the Project Boundary is in the road edges, riparian and wet meadow habitats in the South Marsh, North Marsh, and Bear River Management Units or along the shoreline habitat of Cutler Reservoir, Bear River, Little Bear River, and Logan River.

Adult monarch foraging habitat has potential to occur in the Project Boundary wherever there is suitable habitat for flowering plants. Some agricultural crops provide nectar sources (e.g., safflower, potatoes, soy, etc.); however, non-flowering crops do not provide habitat for adult monarchs. The crops grown within the Project Boundary during any particular year may be any combination of flowering and non-flowering crops. Emergent marsh habitats, such as large areas of the South Marsh and North Marsh, which are predominately composed of dense Phragmites, cattails, or rushes, provide very few flowering plants. Flowering plants in these areas are a mix of flowering plants (annual sunflower, etc.) and some noxious weeds (thistles, toadflax, etc.). However, there is potential for adult monarch habitat throughout portions of the Project Boundary.

Although this species has no formal protections under the ESA, PacifiCorp has collaborated with Utah State University and the Utah Division of Wildlife Resources since 2021 to develop proactive measures for habitat enhancement within the Project Boundary. Discussions have included enhanced plantings of nectar plants and milkweeds, implementing a milkweed identification training for weed control personnel, and changing weed control protocols in areas where milkweed is planted or found. PacifiCorp intends to continue coordination with Utah State University and the Utah Division of Wildlife Resources on these efforts in the future as outlined in Protection, Mitigation, and Enhancement measure SS-1.

3.3.8.2 ENVIRONMENTAL ANALYSIS

This section describes potential effects of the Project to monarch butterflies and their habitat.

MONARCH BUTTERFLY

Under existing operations, the water level in Cutler Reservoir (the operating range) fluctuates between 1 and 1.5 feet seasonally (Section 2.1.3, Existing Project Operations). Under the proposed Project operations, during the irrigation season (typically April to October), the reservoir would fluctuate the same as under current operations (up to 1 foot). During the period outside the irrigation season, when inflows are not high (typically November to March), the reservoir could fluctuate in an operating range that would be potentially an additional 1 to 1.5 feet lower than the proposed normal/current operation regime for approximate 10-day cycles (referred to as the extended operating range). Given that there is no change to reservoir levels proposed during the irrigation season (which is when monarchs are potentially present in the Project Area and have been observed in the Project Vicinity), nor during the growing season for milkweed (roughly May to July), it is not expected that the proposed extended operating range would have any impact on the monarch butterfly or their milkweed breeding habitat (Uleva 2005). Similarly, impacts on flowering plants used by foraging adult monarch butterflies are not anticipated.

6.0 LITERATURE CITED

- Davies, Eve. 2022. Senior Project Scientist. Personal Communication with Mindy Wheeler Regarding Records for Milkweed in Cache and Box Elder counties.
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- United States Department of Agriculture (USDA) 2018. *Poisonous Plant Research: Logan, UT*. Accessed: May 12, 2022. Retrieved from: <https://www.ars.usda.gov/pacific-west-area/logan-ut/poisonous-plant-research/docs/milkweed-asclepias-spp/>.
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