Project Manager: Anna Lawston

Date: January 17, 2023

The applicant is proposing to construct a multi-use commercial developmen

Species Under the Jurisdiction of FWS:							
Species/Resource Presence in Action Name Area		ESA Section 7 Determination					
Indiana bat	Suitable habitat present,						
(Myotis sodalis)	species not present	Not likely to adversely affect					
Northern long-eared bat	Suitable habitat present,						
(Myotis septentrionalis)	species not present	Not likely to adversely affect					

Date: January 17, 202	23				
Monarch butterfly (Danaus plexippus)	Species present (candidate/species of concern only)	Recommend coordination with agency to develop measures to avoid impacts			
Species Under the Jurisdiction of NMFS					
NOAA Fisheries					
Other (species not listed above)					

Project Name: One Logistics Park
Project Number: 2005-00172

t with associated infrastructure to include office spaces, roadways, parking, utilities, stormwater management, and a gas station/col

#### Sources of Info

"Indiana bats hibernate during winter in caves or, occasionally, in abandoned mines. For hibernation, they require cool, humid caves with stable temperatures, under 50° F but above freezing. After hibernation, Indiana bats migrate to their summer habitat in wooded areas where they usually roost under loose tree bark on dead or dying trees. During summer, males roost alone or in small groups" "Groups of female Indiana bats form maternity colonies to bear their offspring in crevices of trees or under loose tree bark. Dead trees are preferred roost sites, and trees standing in sunny openings are attractive because the air spaces and crevices under the bark are warm. Typical roosts are beneath the bark and in crevices of dead trees and beneath loose bark of living trees. Roost trees are likely to be exposed to direct sunlight throughout the day, and are as likely to be in upland habitats as in floodplain forests. Indiana bats are also known to roost in human-made structures such as bridges, sheds, houses and abandoned churches." "Indiana bats also forage in or along the edges of forested areas."

"Loss and degradation of summer habitat and roost sites due to water impoundment, stream channeling, forest clearing, housing development, and clear cutting for agricultural or other uses may be important factors in continuing Indiana bat population decline."

"Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible.

During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds."

Project Number: 2005-00172
Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots present on the upper side and lower side of forewings and hindwings (Bouseman and Sternburg 2001, p. 222). Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches (CEC 2008, p.11; Figure 2). The bright coloring of a monarch serves as a warning to predators that eating them can be toxic (referred to as aposematism). Monarchs in eastern and western North America represent the ancestral origin for the species worldwide. They exhibit long-distance migration and overwinter as adults at forested locations in Mexico and California. These overwintering sites provide protection from the elements (for example, rain, wind, hail, and excessive radiation) and moderate temperatures, as well as nectar and clean water sources located nearby. Adult monarchs feed on nectar from a wide variety of flowers. Reproduction is dependent on the presence of milkweed, the sole food source for larvae. Monarch butterflies ar found in 90 total countries, islands, or island groups. Monarch butterflies have become naturalized in most of these locations outside of North America since 1840. The populations outside of eastern and western North America (including southern Florida) do not exhibit long-distance migratory behavior.

Species Conclusions Table				
nvenience store. The applicant is proposing permanent and temporary impacts to waters of the U.S. (WOTUS).				
Project Elements that Support Determination				
An acoustic bat summer presence/absence survey was completed in July 2021 The results from this acoustic study are consistent with other regional surveys (St. Germain 2016, 2017, 2019). The five species detected during this study were expected given the habitat availability and geographic location. The surveyor did not detect any federally or state threatened or endangered species during the duration of this study. The survey was approved by the USFWS and received an USFWS opinion of not likely to adversly affect.				
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