Project Manager: Anna Lawston	Project Name: Mill Race Mitigation Bank
Date: 20220215	Project Number: 2020-01368

Project Description: Wetland Mitigation Bank

Species Under the Jurisdiction of FWS:				
Species/Resource Name	Habitat/Species Presence in Action Area	ESA Section 7 Determination	Sources of Info	Project Elements that Support Determination
			"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	
Northern long-eared bat (Myotis septentrionalis)	NLEB: Applying the 4(d) Rule; excepted from take	May affect	provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds."	There is no tree removal proposed. The project is not within 150' of a maternity roost or within 1/4 mile of a hibernacula.

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Dwarf wedge mussel (Alasmidonta heterodon)	No suitable habitat present	No effect	"The dwarf wedge mussel lives in shallow to deep rivers and creeks of various sizes where the current is slow to moderate. This mussel lives on muddy sand, sandy, and gravel stream bottoms	There is no stream work proposed on this site. The ground work may be located adjacent to a tributary however all work with comply with local erosion and sedimentation requirements to minimize sedimentation turbidity offisite. Overall the benefit of the mitigation site will provide additional filtration and inproved water quality.

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Monarch butterfly (Danaus plexippus) Species present (candidate/species of concern only)	Recommend coordination with agency to develop measures to avoid impacts	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 are 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.	Not protected under ESA.	
Species Under the Jurisdiction of NMFS NOAA Fisheries				
Other (species not listed above)				

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Bald Eagle				No bald eagle nests are located within 660' of the project area and it is not located within an eagle concentration area. Due to the lack of habitat, known occurrences, and minimal impact anticipated for this project, it has been determined that this project will not affect Bald Eagles.