

MEMORANDUM

Date:	March 28, 2022
Project Name:	Paragon Star Reclamation Area
Project No.:	12720.10
Subject:	On-Site Suitable Bat Tree Review

PURPOSE

The purpose of this Memorandum is to document the on-site suitable bat tree review performed by GBA on March 28, 2022 for the Paragon Star Reclamation project in Lee's Summit, Jackson County, Missouri (**Figure 1**). The 13-acre review area is located at the southwest corner of Noland Road and Clifford Road (**Figure 2**).

Projects located near the reclamation review area have determined that there are 3 federal species that should be considered in an effects analysis including - 1) Gray Bat (*Myotis grisescens*) - endangered; 2) Indiana Bat (*Myotis sodalis*) - endangered; and 3) Northern Long-Eared Bat (*Myotis septentrionalis*) - threatened.

Gray Bat

Gray bats roost in caves or mines year-round and use water features and forested riparian corridors for foraging and travel. Project-related impacts to caves or mines are not anticipated.

Indiana Bat and Northern Long-eared Bat (NLEB)

The Indiana bat NLEB hibernate in caves or mines only during the winter. In Missouri, the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) these two species occupy suitable summer habitat that consist of forested and woodland habitats containing potential roosts (i.e., live trees and/or snags 5 inches diameter at breast height (dbh) for Indiana bat, and 3 inches dbh for NLEB, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian



forests, and other wooded corridors. Tree species often include, but are not limited to, shellbark or shagbark hickory, white oak, cottonwood, and maple.

TREE REVIEW RESULTS

GBA conducted the on-site review of potential suitable bat trees on March 28, 2022. In summary, the review area is predominantly dominated by non-suitable tree species including eastern red cedar, rough-leaf dogwood, osage-orange, and common hackberry that do not appear to exhibit the necessary exfoliating bark, cracks, crevices, and/or hollows to support listed bat species. As shown in **Figure 2**, two individual suitable bat trees were identified including one dead snag and one black locust. Representative photographs of the identified suitable bat trees are attached.

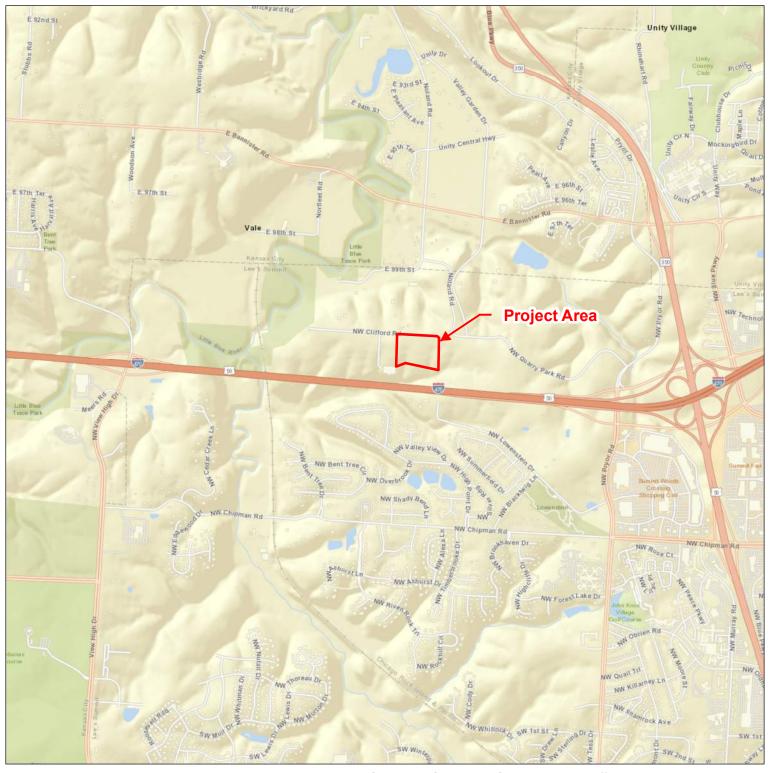
RECOMMENDATIONS

To minimize affects to listed bat species, it is recommended that the two identified suitable bat trees be cut down prior to April 1.

ATTACHMENTS

- A. Figures
- B. Representative Photographs
- cc: Brad Burton, GBA Clint Loumaster, GBA Paragon Star

G:\12720\12720.10\Analysis\Environ\Permitting\Tree Survey - 2022.03.28\Bat Tree Review - Paragon Star Reclamation Area_2022.03.28.docx





Legend

Project Area

Source: ESRI World Street Map - http://services.arcgisonline.com Project Location: Section 35, Township 48N, Range 32W



PROJECT NUMBER 12720.01 DATE 3/28/2022 LOCATION MAP Paragon Star Reclamation Area Noland Road and Clifford Road Lee's Summit, Jackson County, Missouri FIGURE



Legend



Source: 2016 Imagery - https://jcgis.jacksongov.org/arcgis/rest/services

Project Location: Section 35, Township 48N, Range 32W

1 inch = 200 feet



PROJECT NUMBER 12720.01 DATE 3/28/2022 AERIAL PHOTOGRAPH Paragon Star Reclamation Area Noland Road and Clifford Road Lee's Summit, Jackson County, Missouri FIGURE

Paragon Star Reclamation Area Bat Tree Review Photographs (03/28/22) GBA No. 12720.10



Tree #1 – 18" Dead Snag



Closeup of Tree #1

Paragon Star Reclamation Area Bat Tree Review Photographs (03/28/22) GBA No. 12720.10



Tree #2 – 36" Black Locust



Closeup of Tree #2