

APPENDIX II

Projects in which entire action area is contained within small, isolated forest patch(es)

Based on life history information and available literature for Indiana bats (e.g., average foraging distances and occupied forest patch sizes), the Service believes that it is unlikely that an isolated forest stand of 10 acres or less would provide sufficient resources for an Indiana bat (see <https://www.fws.gov/midwest/endangered/section7/s7process/mammals/inba/INBAEcologySummary.html> for more information). However, available data indicate that Indiana bats may infrequently use isolated patches as small as 5.6 acres (Keith Lott, personal communication). The Michigan Ecological Services Field Office believes a conservative minimum patch size of 5 acres is appropriate for Indiana bats and northern long-eared bats (NLEB). Although listed bats rarely traverse non-forested areas of 1000 feet or more, they are frequently observed using vegetated corridors, such as tree lines, to travel between suitable forest patches. Because these corridors may connect important foraging and roosting habitats, removal of tree lines and similar corridors could severely fragment habitat and result in adverse effects or indirect take of listed bats. (Refer to the Indiana Bat Section 7 and Section 10 Guidance for Wind Energy Projects, available at <https://www.fws.gov/midwest/endangered/mammals/inba/WindEnergyGuidance.html>, for more information).

Examples of isolated forest patch(es) of <5 acres:

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Example 1: Entire action area contained within small, isolated forest patch(es)

Project location
LOCATION: Gratiot County, Michigan
AREA: 2.85 acres
[DOWNLOAD SHAPE FILE](#)
[EDIT LOCATION](#)

Forest patch is <5 acres, with no trees/tree lines or connective forest within 1000 feet

Layers [ADD](#)

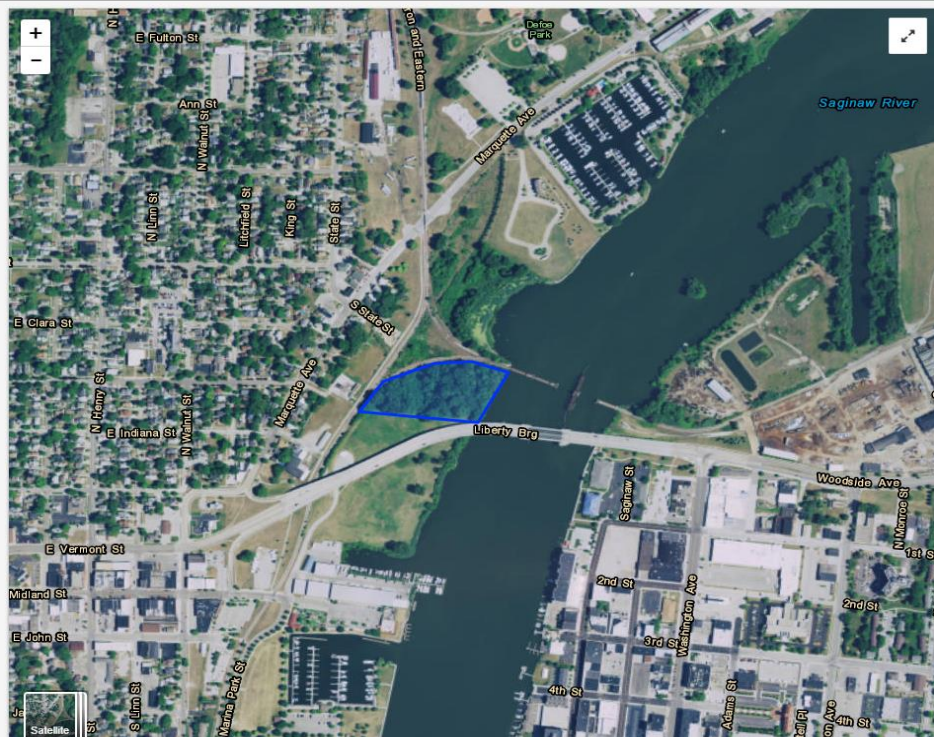


The map displays a satellite view of a rural landscape. A small, irregularly shaped forest patch is highlighted with a blue border. This patch is situated in a grid of larger agricultural fields, some of which are green (likely corn) and others are brown (likely soybeans or fallow). The forest patch is isolated, with no visible tree lines or corridors connecting it to other forested areas within the 1000-foot radius. The map includes a scale bar in the top left corner and a legend in the bottom left corner. The legend shows a green square labeled 'Satellite'.

Forest patch is <5 acres. Although there are trees within 1000 ft, the surrounding area is highly developed and does not connect with any contiguous tracts



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*Note: Examples do not represent current or previously proposed projects.