

Supplemental Biological Assessment

U.S. Fish and Wildlife Service

Enrico Fermi Unit 3 Combined License Application

April 2015

02:10BVDLP.COMM.NU-B4199

Enrico Fermi Unit 3
Supplemental Biological Assessment

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U.S. Fish and Wildlife Service

Combined License (COL) for Enrico Fermi Unit 3

U.S. Nuclear Regulatory Commission Combined License Application
Docket No. 52-033

U.S. Army Corps of Engineers Permit Application
Permit Application No. 10-58-0011-P

Monroe County, Michigan

April 2015

U.S. Nuclear Regulatory Commission
Rockville, Maryland

U.S. Army Corps of Engineers
Detroit District

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Abbreviations/Acronyms

ac	acre(s)
BA	biological assessment
°C	degrees Celsius
CFR	<i>Code of Federal Regulations</i>
COL	combined construction permit and operating license
CWA	Clean Water Act
DA	Department of the Army
DTE	DTE Electric Company
EIS	environmental impact statement
EMF	electromagnetic field
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act of 1973, as amended
FR	<i>Federal Register</i>
ft	foot/feet
FWS	U.S. Fish and Wildlife Service
GEH ESBWR	General Electric Hitachi Economic Simplified Boiling Water Reactor
GEIS	generic environmental impact statement
kg/ha/mo	kilograms per hectare per month
kV	kilovolt(s)
MDNR	Michigan Department of Natural Resources
mi	mile(s)
MNFI	Michigan Natural Features Inventory
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRC	U.S. Nuclear Regulatory Commission
ROD	Record of Decision
ROW	right-of-way

USACE	U.S. Army Corps of Engineers
USC	United States Code
WNS	white nose syndrome

1.0 Introduction

The U.S. Nuclear Regulatory Commission (NRC) is reviewing an application from DTE Electric Company (DTE) for a combined license (COL) to build one General Electric Hitachi Economic Simplified Boiling Water Reactor (GEH ESBWR) (Fermi 3). The proposed NRC Federal action is the issuance, under the provisions of Title 10, Code of Federal Regulations (CFR) Part 52, of a COL authorizing the construction and operation of one new GEH ESBWR at the Fermi site. The Fermi 3 plant would be situated adjacent to the existing Fermi 2 plant within the 1,260-acre (ac) DTE Enrico Fermi Atomic Power Plant Site (Fermi site), located in Monroe County, Michigan. The Fermi site is located approximately 30 mi southwest of Detroit, Michigan, approximately 24 mi northeast of Toledo, Ohio, and approximately 7 mi from the United States–Canada international border. Figure 1-1 depicts the 50-mi radius region surrounding the Fermi site, and Figure 1-2 depicts the 7.5-mi radius vicinity surrounding the Fermi site.

In addition to the COL application, DTE has applied for a U.S. Army Corps of Engineer (USACE) permit pursuant to Section 10 of the Rivers and Harbors Appropriation Act of 1899 and Section 404 of the Federal Water Pollution Control Act, also known as the Clean Water Act (CWA), for Fermi 3 work in navigable waterways and waters of the United States. In addition to the Fermi 3 power plant, *ITCTransmission*, a separate entity from DTE, will potentially build three new 345-kilovolt (kv) transmission lines in a single 29.4-mi corridor from the power plant to a substation in Milan, Michigan. *ITCTransmission* is in charge of siting, building, and operating any transmission lines determined to be necessary, but it has not publicly announced where the potential transmission lines would be sited and built. Neither the NRC nor the USACE would have regulatory authority for issuing permits to *ITCTransmission* for development activities in the transmission corridors.

In January 2013, the NRC prepared an environmental impact statement (EIS) for the Fermi 3 project under the National Environmental Policy Act of 1969, as amended (NEPA). The USACE participated with NRC as a cooperating agency in preparing the EIS. USACE worked with NRC to ensure that the EIS fulfills the requirements of USACE regulations; the CWA Section 404(b)(1) guidelines, which contain the substantive environmental criteria used by the USACE in evaluating discharges of dredged or fill material into waters of the United States; and the USACE public interest review process. The USACE permit decision will be made near the time that the NRC issues a Record of Decision (ROD).

In February 2012, the NRC and the USACE prepared a biological assessment (BA) for multiple species including the Indiana bat (*Myotis sodalis*) (NRC 2012) to support a joint consultation with the U.S. Fish and Wildlife Service (FWS) in accordance with the Endangered Species Act of 1973, as amended (ESA). In February 2015, the NRC and the USACE prepared a Supplemental BA for the rufa red knot (*Calidris canutus rufa*) (NRC 2015) to support a joint

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consultation with the U.S. Fish and Wildlife Service (FWS) in accordance with the Endangered Species Act of 1973, as amended (ESA).

The February 2012 BA examined the potential impacts of construction and operation of Fermi 3 and the proposed transmission system on federally listed threatened or endangered species and species that were candidates for Federal listing pursuant to ESA Section 7(c) at that time. The February 2012 BA concluded that construction and operation of the proposed Fermi 3 facilities is not likely to adversely affect any species then listed or proposed for listing under the ESA, including then candidates for Federal listing, if DTE meets the conditions stated in Section 5.2 of the BA. In a letter from FWS to NRC (FWS 2012) in June 2012, FWS concurred with NRC that “the proposed on-site actions are not likely to adversely affect the Indiana bat” because of the lack of known locations of the Indiana bat in Monroe County and the limited habitat on the Fermi site.

Since the publication of the BA and the final EIS, the northern long-eared bat (*Myotis septentrionalis*) was listed as threatened on April 2, 2015 pursuant to ESA Section 7(c) (80 Federal Register [FR] 17973). The NRC, in cooperation with USACE, has prepared this supplemental BA to support a joint consultation with FWS in accordance with the ESA. The NRC and USACE staff preparing this supplemental BA are henceforth referred to as the review team. This supplemental BA examines the potential impacts on a single species, the northern long-eared bat, from construction and operation of Fermi 3 and cumulative impacts, including the potential associated transmission lines.

While the state of Michigan is within the range of the northern long-eared bat, according to DTE records, the northern long-eared bat has not been observed on the Fermi site (Detroit Edison 2011a). According to the Michigan Natural Features Inventory (MNFI), the northern long-eared bat has been observed in Washtenaw County (Rogers 2015). Although the NatureServe website records do not include documented sightings of the northern long-eared bat in Michigan (NatureServe 2015), FWS has stated that there are three known northern long-eared bat hibernacula in the Lower Peninsula of Michigan (Bohrman 2015). The closest of the Michigan hibernacula is in Berrian County in southwestern Michigan, more than 150 miles from the Fermi site. FWS has stated that in Ohio there are several northern long-eared bat hibernacula in Ottawa, Wood, and Sandusky counties in northwestern Ohio, approximately 40 to 60 miles to the south of the Fermi site (Boyer 2015). FWS in Ohio also stated there are few records of the northern long-eared bat for northwestern Ohio but that is likely because there have been very few summer surveys for this species in that area (Boyer 2015).

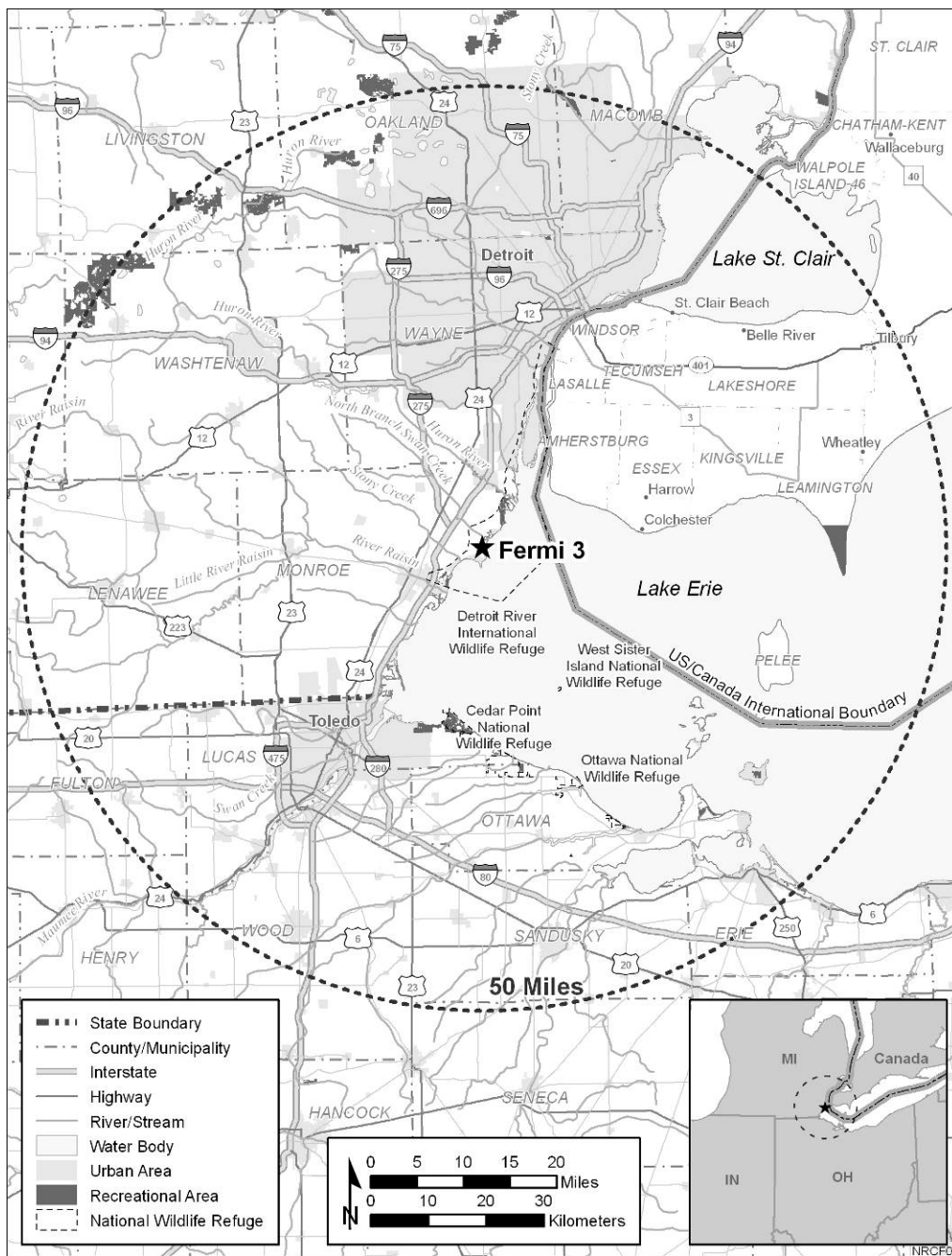


Figure 1-1. Location of the Fermi 3 Site and Surrounding 50-mi Region
(Source: Detroit Edison 2011a)

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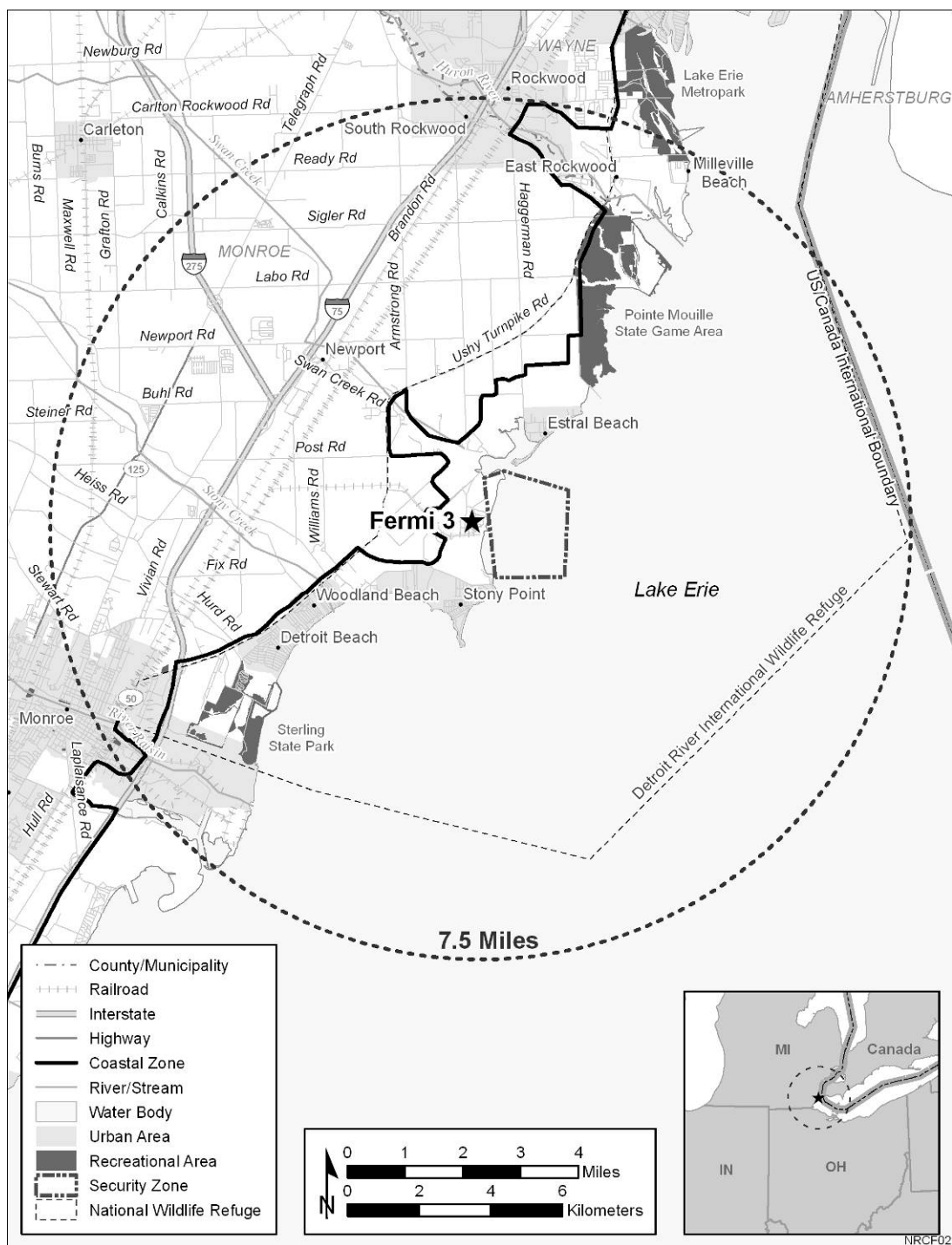


Figure 1-2. Fermi 3 Site and 7.5-mi Vicinity

(Source: Detroit Edison 2011a)

2.0 Fermi Site Description

The Fermi site is located in Monroe County, Michigan, along the Lake Erie shoreline, approximately 30 mi southwest of Detroit, Michigan. The county's land use is mostly agricultural and rural, with some limited but growing residential areas. Areas of forests and wetlands are generally confined to property lines and along streams and shorelines (see Figure 2-1). The proposed Fermi 3 development area is located entirely within the current Fermi site boundary, just south and west of existing Fermi 2 facilities (see Figures 2-1 and 2-2). Part of the proposed Fermi 3 site was previously developed for the Fermi 1 and 2 plants (Detroit Edison 2011a). Fermi 1 was last operated in 1972, is permanently shut down, and is being decommissioned. Fermi 2 is a licensed operating power plant. An aerial view of the Fermi site as it exists now is shown in Figure 2-3.

The project area (action area) consists of the Fermi site and the proposed transmission line corridor. Lake Erie borders the Fermi site on the east, Toll Road is located along the western boundary of the site, Swan Creek is located to the north, and Pointe Aux Peaux Road is located to the south. The entire Fermi site is relatively flat. Large areas of the site consist of developed land, but emergent wetlands, early successional habitats, forests, small quarry lakes, and ponds also are present. The locations of existing facilities at the Fermi site and facilities that would be developed for the proposed Fermi 3 project are shown in Figures 2-1 and 2-2. The areas that would be temporarily and permanently affected by construction activities for Fermi 3 are shown in Figure 2-4.

The existing Fermi 2 unit will continue to operate at the Fermi site and will not be affected by the proposed action. Fermi 2 uses two 400-foot (ft) tall concrete natural draft cooling towers for heat dissipation (Figure 2-3). The cooling water intake from Lake Erie for Fermi 2 is located between two rock groins that extend into Lake Erie along the eastern edge of the site and is used to provide makeup water from Lake Erie for evaporation, drift, and blowdown losses. The Fermi 2 cooling water discharge is located along the shoreline of Lake Erie, north of Fermi 2 and east of the cooling towers.

2.1 Habitats – Fermi Site and Vicinity

The terrestrial communities found on the Fermi site and surrounding landscape are typical of the western shore of Lake Erie in the Lower Peninsula physiographic province and the Southern Lower Peninsula Ecoregion (Michigan Department of Natural Resources [MDNR] 2005). The Fermi site is a mix of coastal emergent wetlands, developed areas, forests (including coastal shoreline, lowland hardwoods, and woodlots), shrubland, and thickets. The northern long-eared bat may potentially use the forest habitat of the Fermi site and the anticipated transmission line

Fermi Site Description

corridor. The surrounding landscape is generally flat and comprises a mix of agricultural fields, developed land, forested and emergent wetlands, and deciduous forests (Detroit Edison 2011a).

The most prevalent land cover types on the Fermi site are coastal emergent wetland, developed land, open water, woodlots, shrubland, and lowland hardwood. The surrounding area has similar cover types, except that coastal emergent wetlands and coastal forest are not present inland from the Lake Erie shoreline (Detroit Edison 2011a).

A variety of wildlife species inhabit the forested, wetland, and open-water habitats on the Fermi site, including amphibians, reptiles, birds, and mammals. The terrestrial wildlife species previously observed on the Fermi site are generally representative of the habitat types present on the site. Although diverse habitats are present on the Fermi site, habitat quality in the emergent marshes is compromised by the dense stands of common reed (*Phragmites australis*), which has low value as habitat for most species and aggressively competes with native plants that provide high-value habitat (Detroit Edison 2011a).

Detailed terrestrial biological surveys of the Fermi site were conducted by DTE in July and October 2008 and May and June 2009 to support the EIS for the Fermi 3 project (Detroit Edison 2009a). Several previous wildlife and plant studies on the property included DTE's reconnaissance surveys of the Fermi site and vicinity between November 2006 and May 2008, and NUS Corporation's survey of the Fermi site between 1973 and 1974, prior to the development of Fermi 2 (NUS Corporation 1974; Detroit Edison 2011a). No federally listed plants or animals or species that were candidates for Federal listing at the time of the surveys were observed during these surveys (Detroit Edison 2009a, 2011a). No areas designated as critical habitat for federally listed terrestrial species or species that are candidates for Federal listing are on the Fermi 3 site. None of the surveys were designed specifically for the purpose of determining the presence of the northern long-eared bat. Nonetheless, the species was not observed during any of the surveys cited above.

In September 2014, DTE conducted field surveys throughout the Fermi site to identify areas that could potentially be used by the northern long-eared bat (Cardno JFNew 2014). While the northern long-eared bat primarily uses forest habitat for roosting in summer months, suitable trees for roosting may also occur in more open habitats (FWS 2014a).



Figure 2-1. Fermi Site and Proposed Fermi 3 Facilities

(Source: Detroit Edison 2011a)

Fermi Site Description



- | | | | |
|--|--|--------------------------------------|---------------------------------|
| 01 Reactor Building | 11 Fuel Building | 22 ADB | 37 EF2/EF3 Common Warehouse |
| 02 Auxiliary Boiler | 12 Diesel Fuel Oil Storage Tank | 23 NPHS Cooling Tower | 38 Parking Garage and EF2 Shops |
| 03 Turbine Building | 13 Water Treatment/Service Water Bldg | 24 Pumphouse | 39 ISFSI |
| 04 Control Room | 14 Service Water Cooling Tower | 25 Security Boundary | 40 PAP/VIB |
| 05 Electrical Bldg/Tech Support Center | 16 Fire Water Tank And Pumps | 26 Station Water Intake | |
| 06 Main Transformers | 17 Water Storage Tanks | 27 CIRC Water Outfall | |
| 07 Unit Auxiliary Transformer | 18 Condensate Storage Tank | 32 EF2/EF3 Hazardous Waste Warehouse | |
| 08 Reserve Auxiliary Transformer | 19 Service Building/Operation Support Center | 33 Barge Slip | |
| 09 Spare Transformer | 20 Hot Machine Shop And Storage | 34 RAD Material Warehouse | |
| 10 Radwaste Building | 21 Wash Down Bays | 35 EF2/EF3 Maintenance Shops | |

Figure 2-2. Proposed Facilities at the Fermi Site

(Source: Detroit Edison 2011b)



Figure 2-3. Aerial View of the Existing Fermi Site Looking North

(Source: Detroit Edison 2011a)

Fermi Site Description



Figure 2-4. Areas Affected by Construction Activities at Fermi 3
(Source: NRC 2013)

2.2 Habitats – Transmission Line Corridors

To deliver the power generated by Fermi 3, the existing transmission system and associated corridors outside the Fermi site would need to be upgraded or developed. The transmission lines would be sited, built, and operated by *ITCTransmission*, a separate entity distinct from DTE. *ITCTransmission* has not yet identified a precise route for the transmission lines. However, based on the projected tie-in for the transmission lines and the availability of existing developed and undeveloped rights-of-way (ROWs), the review team has identified a potential route based on publicly available information that serves as a meaningful basis for evaluating likely environmental impacts of the transmission lines. This anticipated route is shown in Figure 2-5.

The need for additional transmission towers and additional ROW width would be evaluated by *ITCTransmission* when designing the Fermi 3 connection in the future. DTE expects that Fermi 3 would require three 345-kV lines in a single 300 ft-wide corridor extending north from the Fermi site and then west to the Milan Substation, for a total distance of about 29.4 mi. The anticipated route crosses portions of Monroe, Wayne, and Washtenaw counties (Figure 2-5). The first segment (approximately 18.6 mi, see the heavy black line in Figure 2-5) north of the site is expected to follow the existing Fermi 2 345-kV transmission lines to a point just east of I-75. From there, it is expected to run west and north following other existing non-Fermi lines. DTE expects that the new transmission infrastructure for this first segment would fit within the corridor width already established for the existing transmission lines (Detroit Edison 2011a). In addition, reconfiguration of existing conductors in some areas of the existing transmission line may allow the use of existing transmission infrastructure, thereby avoiding the need for new towers.

Detroit Edison expects that the remaining 10.8 mi, extending to the Milan Substation, would be built within an undeveloped ROW possessed but not yet used by *ITCTransmission* (DTE 2011a). That ROW crosses agricultural, forested, and rural residential land. If this ROW is ultimately selected as the location of a new transmission line, vegetation would need to be cleared from it.

The proposed route crosses vegetative cover types similar to those on the Fermi site and its vicinity and it is anticipated that habitat suitable for summer roosting for the northern long-eared bat is likely to occur within the transmission line corridor. Neither DTE nor *ITCTransmission* has conducted systematic terrestrial and/or aquatic surveys for the potential off-site Fermi 3 transmission line corridors. In the future, after it has determined the need for transmission system and corridor development, *ITCTransmission* may conduct species surveys in these areas, as applicable law may require.

Fermi Site Description

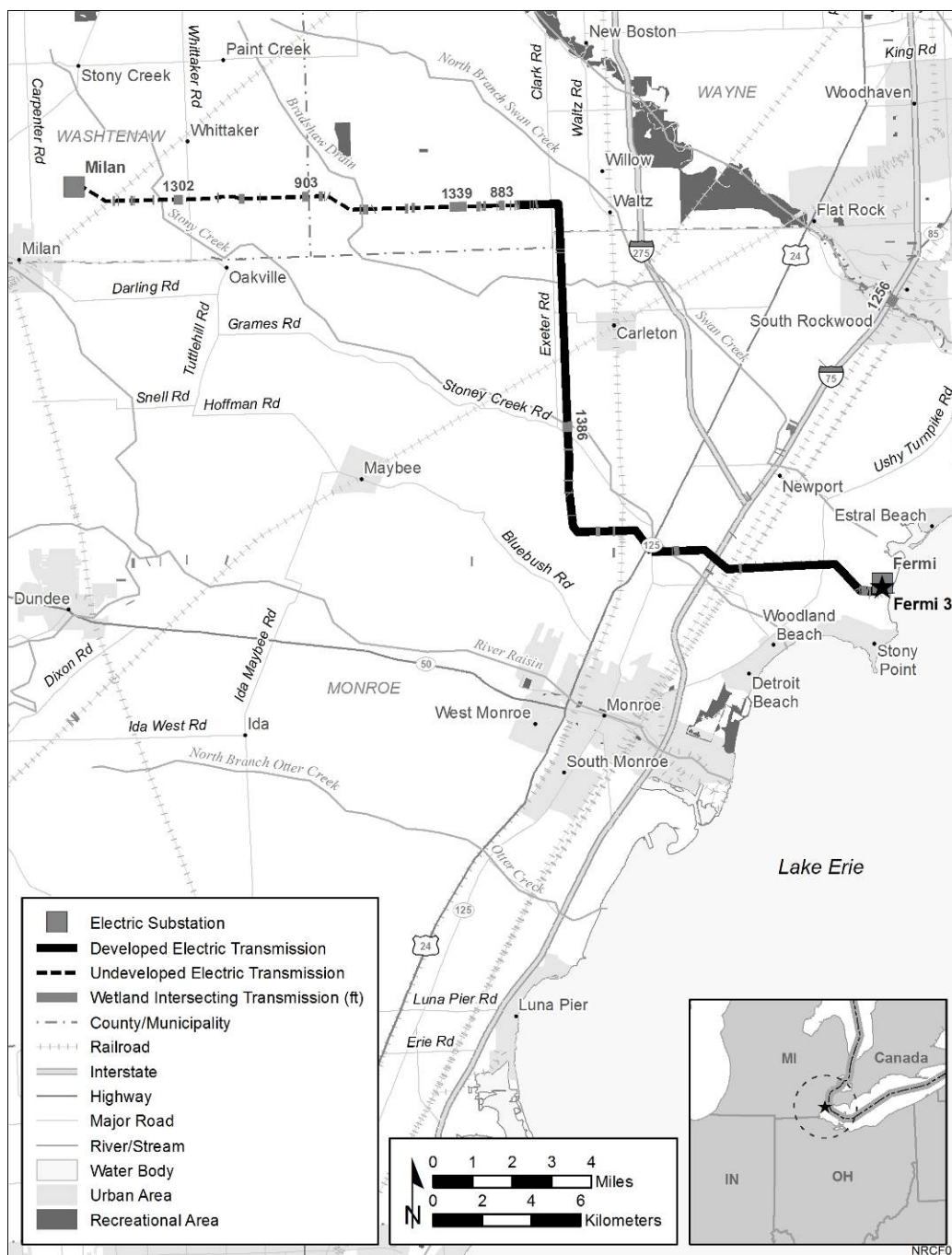


Figure 2-5. Proposed (Undeveloped) and Existing (Developed) Transmission Line Corridors for Fermi 3

3.0 Proposed Federal Actions

The proposed NRC Federal action is the issuance to DTE, under the provisions of 10 CFR Part 52, of a COL authorizing the construction and operation of one new GEH ESBWR at the Fermi site. The proposed USACE Federal action is issuance of a permit to DTE pursuant to the CWA and Rivers and Harbors Act of 1899 to authorize work associated with building Fermi 3 in waters of the United States, including jurisdictional wetlands. Neither NRC's nor USACE's proposed action includes permitting any activities associated with the siting, building, or operation of the transmission lines and corridors that ITC *Transmission* may eventually determine are necessary. ITC *Transmission* is a separate entity from DTE, and it has not publicly announced what transmission system development activities would be undertaken to connect Fermi 3 to the electrical grid.

In a final rule dated October 9, 2007 (72 FR 57416; 72 FR 57432), the NRC limited the definition of "construction" to the activities that fall within its regulatory authority in 10 CFR Part 51.4. Many of the site preparation activities associated with building a nuclear power plant are not part of the NRC action to license the plant. Activities that are associated with construction but that are not within the purview of the NRC action, are grouped under the term "preconstruction." Preconstruction activities include clearing and grading, excavating, erecting support buildings and transmission lines, and other associated activities. These preconstruction activities may take place before the application for a COL is submitted, during the review of a COL application, or after a COL has been granted. Although preconstruction activities are outside the NRC's regulatory authority, many of them are within the regulatory authority of local, state, or other Federal agencies. The distinction between construction and preconstruction is not carried forward in this biological assessment; both are jointly discussed using the term "construction."

The USACE regulatory program was originally established pursuant to the Rivers and Harbors Appropriation Acts of 1890 (superseded) and 1899 (33 United States Code [USC] 401 *et seq.*). Various sections establish permit requirements to prevent unauthorized obstruction or alteration of any navigable water of the United States. Of key importance is Section 10 (33 USC 403), which covers building, excavation, or deposition of materials in, over, or under such waters, or any work that would affect the course, location, condition, or capacity of those waters. In 1972 and 1977, amendments to the CWA added "Section 404" authority, which authorizes the USACE to issue permits for the discharge of material into waters of the United States at specified disposal sites. Selection of such sites must be in accordance with guidelines developed by the U.S. Environmental Protection Agency (EPA) in conjunction with the Department of the Army (DA). These guidelines are known as the 404(b)(1) Guidelines for the specification of disposal sites for dredged or fill material. The discharge of all other pollutants into waters of the United States is regulated under Section 402 of the CWA.

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Because of the species' habitat affinities and life-history characteristics, the northern long-eared bat could be affected by construction and operation activities associated with the Fermi 3 project.

Activities with the potential to affect terrestrial habitats, including forests, include the following construction activities:

- On-site clearing, grading, and other site-preparation activities,
- Building the proposed facilities, including buildings, parking lots, access roads, utilities, and other features, on the site,
- Clearing for expansion of existing transmission line corridors or temporary workspaces,
- Clearing for new transmission line corridors,
- Installation of new or upgraded transmission lines and towers, and
- Construction of a 600-ft tall cooling tower.

Operations with a potential to affect terrestrial habitats and wetlands include the following activities:

- Presence of the cooling tower,
- Vehicular use of access roads and parking lots,
- Vegetation control in transmission line corridors, and
- Transmission line repairs or upgrades.

3.1 Potential Impacts from Construction and Operation on Site

3.1.1 Construction

Forested habitat containing potential roost trees for the northern long-eared bat would be directly affected by construction of Fermi 3. Construction of some of the Fermi 3 facilities will require removing vegetation from forest, shrubland, and other areas that contain potential roost habitat trees.

The construction footprint would encompass approximately 190 ac within the Fermi site (Detroit Edison 2011a). Approximately 9.4 ac of wetland on the Fermi site would be permanently lost, and approximately 23.7 ac would be temporarily disturbed. Approximately 9.4 ac of forest would be permanently lost, and approximately 11.1 ac would be temporarily disturbed. Approximately 8.4 ac of the permanently lost forest is recently regenerated cover on fill created during the construction of Fermi 2.

DTE has stated its commitment to complying with USACE Section 404 permit conditions and implementation of associated mitigation plans, including a Soil Erosion and Sedimentation Control Plan, a Storm Water Pollution Prevention Plan, and a Compensatory Mitigation Plan, to provide adequate environmental protection (Detroit Edison 2011b). Best management practices would be in place to address unavoidable habitat disturbances. All construction activities would be performed in compliance with applicable Federal, state, and local laws, regulations, and permit requirements (Detroit Edison 2011b).

3.1.2 Operation

Operating the proposed Fermi 3 plant is likely to have only minimal impacts on the northern long-eared bat and its potential habitat. Operation of a cooling tower transfers heat to the atmosphere in the form of water vapor and can result in icing, fogging, increased humidity, increased noise levels, and the deposition of dissolved solids from cooling-tower drift (NRC 1996). According to the applicant, the maximum predicted annual salt deposition rate at any receiving location is 1 kilogram per hectare per month (kg/ha/mo) (Detroit Edison 2011a). This value is much lower than the NRC-acceptable levels of total dissolved solids and is not considered damaging to plants (NRC 2000). Therefore, impacts on vegetation associated with operation of the cooling tower are expected to be negligible, both on the Fermi site and in the vicinity.

While tall structures are known to result in collisions that kill large numbers of birds, the literature suggests that bats are much less likely to be killed by such collisions (Cryan 2011). The forest habitat that the northern long-eared bat may use is unlikely to be affected by operation of the Fermi 3 project.

3.2 Potential Impacts from Construction and Operation of the Proposed Transmission Line Corridors

The transmission lines serving Fermi 3 would be sited, built, owned, and operated by ITC*Transmission*. DTE would not control the development or operation of the new transmission lines. Accordingly, the following discussion is based on publicly available information and reasonable expectations of how ITC*Transmission* would proceed, based on standard industry practice.

3.2.1 Construction

The construction of Fermi 3 would potentially necessitate development of three new transmission lines in an assumed 300-ft-wide corridor from the Fermi site to the Milan Substation, a distance of approximately 29.4 mi. The first 18.6 mi (going west and north from Fermi) would be installed alongside the 345-kV lines that are already in place (see solid black

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line in Figure 2-5). This 18.6-mi portion of the transmission line would be built largely by the reconfiguration of conductors on existing towers within the transmission ROW, but placement of additional transmission infrastructure may be necessary (Detroit Edison 2011a). A majority of the 18.6-mi portion of the route crosses large agricultural fields and would therefore result in minimal impacts on habitat and wildlife generally (NRC 2013). Because habitat potentially suitable for use by the northern long-eared bat, including trees suitable for roosting, would not be affected, construction of this segment of the transmission line would not likely affect the northern long-eared bat.

The 10.8-mi portion of ROW between the existing transmission ROW and the Milan substation (broken line in Figure 2-5) would run through forests, rural residential areas, and agricultural fields. For the purpose of this BA, the 10.8-mi portion of the proposed route is presumed to have a ROW that is 300 ft wide. To accommodate the construction of new transmission towers, steel poles, footings, and conductors along this portion of the corridor, DTE has indicated that acquisition and clearing of additional land adjacent to the existing ROW may be necessary for laydown and other construction purposes (Detroit Edison 2011a). The review team estimates that approximately 244 ac of forest cover would be permanently cleared to build the transmission line (NRC 2013).

The Milan Substation would probably be expanded from its current size of 350 ft by 500 ft to an area approximately 1,000 ft by 1,000 ft to accommodate the three new transmission lines from Fermi 3 (Detroit Edison 2011a). This expansion would encroach onto maintained grass and agricultural areas and would not require clearing trees.

The exact locations (routes) for the new ROWs have not yet been finalized by ITC *Transmission*. Thus, the routes and corridor boundaries shown in Figure 2-5 are projections based on the best available information and are subject to change (Detroit Edison 2011a).

3.2.2 Operation

Effects on wildlife from the transmission lines are expected to be minor. The only potential hazard for the northern long-eared bat would be the possibility of collisions with towers and conductors. Cryan (2011) states that while bats are sometimes found dead after colliding with buildings and communication towers, the number of migratory bats encountered in such situations is often very low. NRC's generic environmental impact statement (GEIS) for license renewal (NRC 1996) concludes that the impacts of electromagnetic fields (EMF) on terrestrial flora and fauna are not significant at operating nuclear power plants, including transmission line systems with variable numbers of power lines. On this basis, the review team concludes that the incremental impacts of EMF due to possible additions of new power lines for Fermi 3 would be minimal.

4.0 Species Description for the Northern Long-eared Bat

On October 2, 2013, the FWS proposed listing the northern long-eared bat (*Myotis septentrionalis*) as endangered under the ESA (78 FR 61046). Prior to that time, the species was neither proposed nor identified as a candidate for ESA listing. On January 16, 2015, the FWS proposed creating a special rule under Section 4(d) of the ESA should the species be listed as threatened (80 FR 2371). The species was listed as threatened on April 2, 2015 (80 FR 17973). Critical habitat for the species has not yet been formally proposed, although hibernacula are generally considered as essential habitat for the species (80 FR 2371).

The northern long-eared bat has experienced a sharp population decline thought to be due to the spreading of white-nose syndrome (WNS). WNS was first documented on hibernating bats in a New York cave during the winter of 2006-2007 and is named for the presence of a white fungal growth around the affected bats' muzzle, ears, and wing membranes (FWS 2014b). WNS continues to spread and as of 2014 it was known to occur in 25 U.S. states and five Canadian provinces (FWS 2014b). The fungus known to cause WNS (*Pseudogymnoascus destructans*) has been detected in an additional three U.S. states. WNS is present within northern Michigan and the Upper Peninsula but at present is not known to occur at the Fermi site or in its vicinity (FWS 2015a).

The Fermi site is within the summer range of the northern long-eared bat. The bat does not appear to spend its winters on or near the site since there are no known hibernacula in the vicinity. FWS has stated that there are three known northern long-eared bat hibernacula in the Lower Peninsula of Michigan, the closest of which is more than 150 miles to the west (Bohrman 2015). There are four co-documented hibernacula in northwest Ohio, the closest of which is in Ottawa County, approximately 40 miles south of the Fermi site. A brief discussion of the species' distribution, summer and winter range, feeding habitats, and general ecology is provided below.

Species Description and Range

The northern long-eared bat is a brown medium-sized bat that has a mass of approximately 5 to 8 grams with an average body length of 3 inches (Caceres and Barclay 2000). As its common name suggests, the northern long-eared bat is distinguished from its congeners by its long, spear-like tragus that when folded down extends beyond the tip of the nose. The northern long-eared bat is distributed throughout the eastern half of the United States and Canada. In the United States, the species' range includes 39 states, among them Michigan and its neighboring states (FWS 2015b).

Species Description for the Northern Long-eared Bat

Migration Ecology

Northern long-eared bats migrate seasonally between their summer forested habitat and winter hibernacula. Winter and summer habitat preferences are discussed separately below.

Winter Habitat

Ideal winter hibernacula for northern long-eared bats consist of large, climatically stable caves and mines. However, northern long-eared bats have also been observed hibernating in man-made features including storm sewers, railroad tunnels, and bunkers (FWS 2014b). These hibernacula maintain constant temperatures around 0 to 4 degrees Celsius (°C) with high humidity and little to no air flow (Caceres and Pybus 1997). Northern long-eared bats are typically found within the hibernacula roosting in small cracks or crevices, either singly or in small groups (FWS 2014b). This species has been documented to move between different hibernacula during the winter season, although they seem to return to the same set of hibernacula each year (Caceres and Barclay 2000; FWS 2014a). Winter hibernation season depends on latitude but is likely to occur in Michigan between October 1 and March 31.

Mating season for northern long-eared bats occurs in August and September, prior to hibernation. The females store the sperm during hibernation, delaying ovulation and fertilization until the following spring after they emerge from hibernation (Guthrie 1933).

Winter bat hibernacula are not present on the Fermi site or vicinity (Bohrman 2015). The only documented hibernacula in the Lower Peninsula of Michigan are in southwestern Michigan (Berrien County) and the northern part of the Lower Peninsula (Alpena and Manistee counties), at least 150 miles from the project area. As with many other bat species, northern long-eared bats migrate between their winter hibernacula and summer habitat. The spring migration period likely runs from mid-March to mid-May, with fall migration likely between mid-August and mid-October (FWS 2014a). Northern long-eared bats are not considered to be long-distance migrants, typically dispersing 40 to 50 miles from their hibernacula to summer habitat (80 FR 2371).

Summer Habitat

After emerging from hibernation, reproductive females migrate to their summer habitat, where they form maternity colonies of typically 30 to 60 individuals to give birth and raise their young (FWS 2014a). Females give birth to a single pup each year; the pups are able to fly three to five weeks after birth (FWS 2014a). Roosting individually or in small groups, males and non-reproductive females are typically dispersed throughout the range roosting in trees, caves, or less commonly, buildings (Caceres and Barclay 2000). Summer maternity season in Michigan generally occurs between April 1 and September 30 (FWS 2014a).

Species Description for the Northern Long-eared Bat

Northern long-eared bats have been documented roosting in cracks, crevices, and under the exfoliating bark of 35 different tree species as summer roosts, both living and dead, i.e., snags (Carter and Feldhamer 2005; FWS 2014b). Suitable roost trees tend to be 3 inches or more in diameter at breast height (dbh) (FWS 2014a). The use of man-made roosts (e.g., barns, sheds) has also been documented, but appears to be rare compared with tree roosts (FWS 2014a). Northern long-eared bats show strong site fidelity, returning to the same summer roosting/maternity area yearly.

The summer months are spent foraging for flying insects in upland forest (FWS 2014a). Northern long-eared bats eat a variety of insects with a high abundance of beetles, flies, moths, and caddisflies. Due to its gleaning feeding habits (i.e., capturing prey off the surface of vegetation), this species also consumes more spiders and orthopterans (e.g., crickets, grasshoppers, katydids) than its congeners (Lee and McCracken 2004; Feldhamer et al. 2009).

The Fermi site and vicinity likely support summer roosting habitat for the northern long-eared bat and/or maternity colonies. A study prepared for DTE in 2014 identified areas of forest and individual trees that meet the criteria for roost habitat during the summer period as described in the literature. Trees with diameters of 3 inches dbh having exfoliating, peeling, or scaling bark that could provide potential roosting habitat were located in several areas of the Fermi site. The study identified more than 185 potential roost trees in a variety of habitat types. The majority of the potential roost trees are outside the proposed construction footprint for Fermi 3, and would therefore be unaffected by the project. There are also a number of constructed bat houses, although there was no evidence that the bat houses had been used near the time of the survey (Cardno JFNew 2014).

Because the potential transmission line corridor has not been surveyed, no potential roost trees have been identified in the corridor. It is likely however that suitable roosting habitat occurs within the western 10.8-mi segment of the potential corridor.

5.0 Potential Environmental Effects of the Proposed Actions

5.1 Construction Impacts

The following paragraphs describe the potential for the construction of Fermi 3 to affect the northern long-eared bat on and within the vicinity of the Fermi site and transmission line corridors.

5.1.1 Fermi Site

Approximately 9.4 ac of forest (out of more than 250 ac of total forest cover on the Fermi site) would be permanently disturbed during construction of Fermi 3. A study conducted by DTE in September 2014 identified more than 180 potential roosting trees on the Fermi site. The habitat areas most likely to be used by the northern long-eared bat are the forested areas and other vegetated habitats that contain potential roost trees. Construction activities, including clearing vegetation and construction of permanent facilities would take place in those areas.

MNFI has stated that the bat has been observed in nearby Washtenaw County and that it is likely that, with the listing of the northern long-eared bat as a threatened species, more surveys for this species will be conducted and, therefore, more northern long-eared bats will likely be observed in Monroe and Wayne counties in the near future (Rogers 2015). Although there are no records of the northern long-eared bat being observed on the Fermi site (Detroit Edison 2011a), it is possible that the bat currently uses the Fermi site or may in the future.

The review team believes that if DTE limits clearing of forest cover to the northern long-eared bat's hibernation period between November 1 and March 15, it could avoid adverse effects on northern long-eared bats (FWS 2014a). Additionally, consistent with Appendix D of the Northern Long-Eared Bat Interim Conference And Planning Guidance (FWS 2014a), in those areas not directly affected by construction, DTE could retain and avoid impacting potential roost trees, which includes live or dead trees and snags ≥ 3 inches dbh that have exfoliating bark, cracks, crevices, or cavities. Also DTE could avoid removing trees surrounding potential roosts to maintain the microclimate. Where possible and if not a safety hazard, DTE could leave dead or dying trees standing. Alternately, DTE could readily conduct targeted mist nest surveys of forested areas using an FWS-approved protocol (FWS 2014a) prior to disturbance and proceed only if the surveys reveal that no northern long-eared bats are present. DTE follows the protective measures in the USFWS *Rangewide Indiana Bat Protection and Enhancement Plan Guidelines*. Assessment, protection, and management techniques recommended and being used for the Northern long-eared bat are the same as those currently being used for the Indiana bat. Considering the ability to avoid adverse impacts through the simple and practicable

Potential Environmental Effects of the Proposed Actions

measures noted above, several of which are already in place based on the measures DTE follows for the Indiana bat, the review team concludes that building the proposed Fermi 3 facilities may affect, but is not likely to adversely affect, the northern long-eared bat.

5.1.2 Transmission Line Corridor

Although ITC *Transmission* has not finalized the exact locations of the transmission line corridor or ancillary areas (e.g., laydown areas), DTE has identified a potential route based on the position of Fermi 3, the targeted substation for tie-in to the grid, and past analyses of routes conducted for the development of Fermi 2. The route analysis (Detroit Edison 2009b) followed guidance from the U.S. Department of the Interior and the Federal Power Commission for siting transmission lines. In addition, other criteria were considered to minimize environmental impacts (Detroit Edison 2011a).

Although ITC *Transmission* has not yet performed on-the-ground field surveys for federally listed species along the proposed routes, the review team consulted online sources, including the Michigan Natural Features Inventory and the FWS Environmental Conservation Online System, to determine what information is currently available. The transmission corridor route traverses a variety of habitats that may provide potential summer roosting habitat for the northern long-eared bat.

According to MNFI, the northern long-eared bat has been documented as occurring in Washtenaw County and it is likely that individuals will be observed in Monroe and Wayne counties in the future (Rogers 2015). Although ITC *Transmission's* potential transmission system development activities are not subject to permitting by the NRC or USACE, the review team believes that effects on the bat from these activities could be practicably avoided or minimized in the variety of ways discussed above in Section 5.1.1. As a part of efforts to avoid and minimize effects, ITC *Transmission* may also conduct surveys for potentially suitable habitat, similar to the survey DTE conducted on the Fermi site in September 2014, as applicable law may require. Considering the ability to avoid adverse impacts using the simple and practicable measures noted above, the review team concludes that building the proposed transmission lines may affect, but is not likely to adversely affect, the northern long-eared bat.

5.2 Operations Impacts

The following paragraphs describe the potential for operations-related impacts on the northern long-eared bat on and within the vicinity of the Fermi site and transmission line corridors.

5.2.1 Fermi Site

The northern long-eared bat has the potential to occur in several habitats on the Fermi site. This species might roost in areas with trees with a diameter of 3 inches or greater and

exfoliating bark. While clearing forest vegetation during construction at the Fermi site could result in removal of trees that could potentially be used as roost trees by this species, operation of Fermi 3 would not substantially affect the remaining forested habitat on the Fermi site. The Fermi 3 cooling tower presents a potential collision hazard for the northern long-eared bat. As stated previously, however, the risk for bat collisions posed by the cooling tower is expected to be minimal.

The review team has thus concluded that the operation of Fermi 3 is unlikely to adversely affect the northern long-eared bat.

5.2.2 Transmission Line Corridor

Even after ITC *Transmission* clears the corridor and builds the transmission lines, habitat for the northern long-eared bat may remain adjacent to and in the outer margins of the transmission line corridor. It is possible that trees could grow large enough in such areas to both serve as potential roost trees and be “danger trees” requiring removal to ensure safe operation of the transmission lines. Negative effects on the northern long-eared bat could be reduced to negligible levels by limiting clearing trees or performing other work in or near potentially suitable habitat during the months of the year when the northern long-eared bat is expected to be hibernating or otherwise not present in the project area. The review team has thus concluded that the operation of the Fermi 3 transmission lines would have little potential effect on the northern long-eared bat.

6.0 Cumulative Effects

For purposes of evaluating cumulative effects, the review team considered a geographical area of interest within which the Fermi 3 project could interact with other projects to cumulatively affect the same ecological resources. The review team delineated the geographical area of interest as the area within 15 miles of the Fermi site. Major projects in the geographical area of interest potentially capable of interacting with the Fermi 3 project to cumulatively affect ecological resources include the ongoing operation of Fermi 2, three coal-fired power plants (the DTE Monroe Power Plant, the Bayshore Power Plant, and the J.R. Whiting Power Plant), three limestone quarries, and several wastewater treatment plants (see Table 7-1 in the Fermi 3 Draft EIS (NRC 2013)). Reasonably foreseeable projects (in addition to the potential transmission lines discussed throughout this BA) within the geographic area of interest that could affect the same ecological resources include expanded regional commercial and residential development, building the Ventower Industries wind turbine manufacturing facility, and building a proposed Cleveland-Toledo-Detroit passenger rail line. Ongoing commercial and residential development in the region would be expected to add to the loss of various habitats and wildlife.

The geographic area of interest includes agricultural land (row crops); open water, including part of Lake Erie and shallow lagoons within the Fermi site; developed land; upland forests; and forested and emergent wetlands. With the exception of Great Lakes marsh and southern hardwood swamp, the habitats and wildlife that would be disturbed are common in the region. At least some of the other current and potential projects in the area of interest would affect some of the same habitats as the Fermi 3 project. It is not apparent, however, that any of the projects would affect upland forest habitat such as might be used by the northern long-eared bat. The habitats that would be affected are not considered unique or critical for the survival of the northern long-eared (80 FR 2371). Therefore, the potential cumulative impacts of the evaluated projects on the northern long-eared bat appear to be minimal. The contribution of the construction and operation of Fermi 3 to the cumulative impacts on the northern long-eared bat is likely to be minimal. The review team recognizes that ongoing residential and commercial development could result in the loss of individual trees capable of serving as roost trees for the northern long-eared bat. However, the review team expects that the losses would be widely scattered and not substantially alter the overall pattern of roost tree availability in the landscape. Additionally, the review team expects that any such losses would be at least partially offset by continued maturation of saplings into new roost trees.

7.0 Conclusions

The BA's conclusion regarding the potential impacts of construction and operation of the proposed Fermi 3 project, including the associated off-site transmission lines, on the northern long-eared bat are identified in Table 7-1. This conclusion considers the known and probable distributions of this species and the potential direct, indirect, and cumulative ecological impacts of construction and operation on the species. Designated critical habitat for the northern long-eared bat has not yet been identified by the U.S. Fish and Wildlife Service. The FWS listing determination of "threatened" for the northern long-eared bat is accompanied by an interim rule under ESA section 4(d), which may except certain activities such as expansion of utility rights-of-way and limited tree removal projects from ESA take prohibitions (80 FR 17973). The review team's conclusions in this BA—that the Fermi 3 project may affect, but is not likely to adversely affect the northern long-eared bat—do not assume the applicability of potential exceptions to ESA take prohibitions. The conclusions of this BA would be further reinforced in the event that these exceptions apply to the proposed Fermi 3 activities.

Because of the presence of potential roosting habitat on the Fermi site, the northern long-eared bat may be affected by the construction and operation of the proposed Fermi 3 facilities. However, because DTE can readily prevent adverse impacts through the implementation of simple, practicable avoidance measures, construction and operation of the project is unlikely to adversely affect the northern long-eared bat.

Construction of the potential transmission lines by ITC *Transmission* (an activity that is not a part of the NRC or USACE actions) would also disturb upland forested habitat with the potential to be used for roosting by the northern long-eared bat. As with the potential roosting habitat on the Fermi site, identification of the potential roosting habitat and clearing of such habitat during the months when the northern long-eared bat is not active in the project area would reduce impacts on the species to negligible levels. Operation of the transmission line is unlikely to adversely affect individual northern long-eared bats.

Table 7-1. Summary of Potential Effects on the Northern Long-eared Bat—Federally Listed Threatened—from Construction and Operation of Proposed Fermi 3 and Associated Transmission Lines

Common Name	Scientific Name	Status ¹	Determination
Terrestrial Species			
Mammals			
Northern Long-Eared Bat	<i>Myotis septentrionalis</i>	Threatened	May affect; not likely to adversely affect

¹ Source: 80 FR 17973 change reference to April 2 Fed Register

8.0 References

- 10 CFR Part 52. Code of Federal Regulations, Title 10, *Energy*, Part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants.”
- 10 CFR Part 50. Code of Federal Regulations, Title 10, *Energy*, Part 50, “Domestic Licensing of Production and Utilization Facilities.
- 10 CFR Part 51. Code of Federal Regulations, Title 10, *Energy*, Part 51, “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions.
- 72 FR 57416. October 9, 2007. “Limited Work Authorizations for Nuclear Power Plants.” *Federal Register*. U.S. Nuclear Regulatory Commission.
- 72 FR 57432. October 9, 2007. “Limited Word Authorizations for Nuclear Power Plants, Final Rule.” *Federal Register*. U.S. Nuclear Regulatory Commission.
- 80 FR 2371. January 16, 2015. “Endangered and Threatened Wildlife and Plants; Listing the Northern Long-eared Bat With a Rule Under Section 4(d) of the Act” U.S. Fish and Wildlife Service.
- 80 FR 17973. April 2, 2015. “Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat With 4(d) Rule” U.S. Fish and Wildlife Service.
- Bohrman, J. 2015. Email from J. Bohrman (US Fish and Wildlife Service, East Lansing, Michigan) with David Weeks (Ecology and Environment, Inc.), March 17.
- Boyer, A. 2015. Email from A. Boyer (US Fish and Wildlife Service, Columbus, Ohio) with David Weeks (Ecology and Environment, Inc.), March 18.
- Caceres, M.C., and R.M.R. Barclay. 2000. *Myotis septentrionalis*. Mammalian Species 634. American Society of Mammalogists.
- Caceres, M. C., and M. J. Pybus. 1997. Status of the northern long-eared bat (*Myotis septentrionalis*) in Alberta. Alberta Environmental Protection, Wildlife Management Division, Wildlife Status Report No. 3, Edmonton, AB.
- Cardno JFNew. 2014. Threatened and Endangered Species Survey and Assessment Report Addendum – Proposed Federally-Listed Species – Fermi 2 Site. November 14, 2014. Prepared for DTE Electric Company (Detroit Edison).

References

Carter, Timothy C. and G. Feldhamer. 2005. Roost tree use by maternity colonies of Indiana bats and northern long-eared bats in southern Illinois. *Forest Ecology and Management* 219 (2005) 259–268.

Clean Water Act (CWA). 33 USC 1251, *et seq.* (also referred to as the Federal Water Pollution Control Act).

Cryan, P. 2011. Wind Turbines As Landscape Impediments To The Migratory Connectivity Of Bats. *Environmental Law* 41:355-370. May 20, 2011.

Detroit Edison Company (Detroit Edison). 2009a. Letter from P.W. Smith (Director of Nuclear Development—Licensing, Detroit Edison) to U.S. Nuclear Regulatory Commission dated November 23, 2009, “Subject: Detroit Edison Company Response to NRC Requests for Additional Information Related to the Environmental Review.” Accession No. ML093380331.

Detroit Edison Company (Detroit Edison). 2009b. Letter from P.W. Smith (Director of Nuclear Development—Licensing, Detroit Edison) to U.S. Nuclear Regulatory Commission dated July 31, 2009, “Subject: Detroit Edison Company Response to NRC Requests for Additional Information Related to the Environmental Review.” Accession No. ML092290662.

Detroit Edison Company (Detroit Edison). 2011a. *Fermi 3 Combined License Application, Part 3: Environmental Report*. Revision 2, Detroit, Michigan. February. Accession No. ML110600498.

Detroit Edison Company (Detroit Edison). 2011b. Letter from P.W. Smith (Director of Nuclear Development—Licensing, Detroit Edison) to U.S. Nuclear Regulatory Commission dated January 10, 2011, “Subject: Updates to the Fermi 3 Combined License Application (COLA) Reflecting Changes to the Fermi Site Layout.” Accession No. ML110280343.

Endangered Species Act (ESA) of 1973. 16 USC 1531, *et seq.*

Feldhamer, G. A., T. C. Carter, J. O. Whitaker Jr. 2009. Prey Consumed by Eight Species of 5 Insectivorous Bats from Southern Illinois. *The American Midland Naturalist* 162(1):43- 51.

Guthrie, M. J. 1933. The reproductive cycles of some cave bats. *Journal of Mammalogy* 14(3):199-216.

Lee, Y., and G.F. McCracken. 2004. Flight activity and food habits of three species of *Myotis* bats (Chiroptera: Vespertilionidae) in sympatry. *Zoological Studies* 43(3):589-597.

References

Michigan Department of Natural Resources (MDNR). 2005. Wildlife Action Plan. http://www.michigan.gov/dnr/0,1607,7-153-10370_30909---,00.html. Accessed February 11, 2010. Accession No. ML112620595.

National Environmental Policy Act of 1969, as amended (NEPA). 42 USC 4321, *et seq.*

NatureServe. 2015. *NatureServe Explorer: An Online Encyclopedia of Life*. NatureServe, Arlington, Virginia. <http://www.natureserve.org/explorer>. Accessed March 13, 2015.

NUS Corporation. 1974. *1973–74 Annual Report of the Terrestrial Ecological Studies at the Fermi Site*. Prepared for Detroit Edison Company, March 1974.

Rivers and Harbors Appropriation Act of 1899. 33 USC 403, *et seq.*

U.S. Nuclear Regulatory Commission (NRC). 1996. *Generic Environmental Statement for License Renewal of Nuclear Power Plants*. NUREG-1437. Washington, D.C.

U.S. Nuclear Regulatory Commission (NRC). 2000. *Environmental Standard Review Plan – Review Plans for Environmental Reviews for Nuclear Power Plants*. NUREG-1555, Washington, D.C. Includes 2007 updates.

U.S. Fish and Wildlife Service (FWS). 2012. Letter from Scott Hicks (Field Supervisor, Fish and Wildlife Service, East Lansing Field Office) to U.S. Nuclear Regulatory Commission dated June 8, 2012, “Subject: Endangered Species Act Section 7 Consultation for the Fermi 3 Nuclear Power Plant, Monroe, Michigan.” Accession No. ML12178A137.

U.S. Fish and Wildlife Service (FWS). 2014a. Northern Long-Eared Bat Interim Conference and Planning Guidance, USFWS Regions 2,3,4,5, & 6, January 6, 2014. <http://www.fws.gov/midwest/endangered/mammals/nlba/pdf/NLEBinterimGuidance6Jan2014.pdf>. Accessed March 6, 2015.

U.S. Fish and Wildlife Service (FWS). 2014b. White-Nose Syndrome, the devastating disease of hibernating bats in North America, August 2014. [https://www.whitenosesyndrome.org/sites/default/files/resource/white-nose fact sheet 8-2014_0.pdf](https://www.whitenosesyndrome.org/sites/default/files/resource/white-nose%20fact%20sheet%208-2014_0.pdf). Accessed March 6, 2015.

U.S. Fish and Wildlife Service (FWS). 2015a. White-nose syndrome.org, North America's response to the devastating bat disease. <https://www.whitenosesyndrome.org/about/where-is-it-now>. Accessed March 6, 2014.

U.S. Fish and Wildlife Service (FWS). 2015b. Northern Long-Eared Bat (*Myotis septentrionalis*) Fact Sheet.

References

<http://www.fws.gov/midwest/endangered/mammals/nlba/pdf/NLBAFactSheetJanuary2015.pdf>. Accessed March 6, 2015.

U.S. Nuclear Regulatory Commission and U.S. Army Corps of Engineers (NRC). 2012. Biological Assessment - Enrico Fermi Unit 3 Combined License Application. Washington, D.C.

U.S. Nuclear Regulatory Commission (NRC). 2013. Environmental Impact Statement for the Combined License (COL) for Enrico Fermi Unit 3. NUREG-2105, Vol. 1. Washington, D.C.

U.S. Nuclear Regulatory Commission and U.S. Army Corps of Engineers (NRC). 2015. Supplemental Biological Assessment - Enrico Fermi Unit 3 Combined License Application. Washington, D.C.