



December 19, 2023

FINDING OF NO SIGNIFICANT IMPACT
Marquette Greenway Trail: Calumet Reroute Section
ENVIRONMENTAL ASSESSMENT
Indiana Dunes National Park, Indiana

BACKGROUND

The National Park Service (NPS) has completed comprehensive analysis of a proposal to construct the Calumet Reroute Section of the Marquette Greenway Trail through Indiana Dunes National Park (park). The purpose of this project is to allow for non-motorized regional access to the park by constructing a trail segment that is Architectural Barriers Act (ABA) and Americans with Disabilities Act (ADA) compliant.

The impacts of the proposed action were analyzed in an Environmental Assessment (EA), which was open for public comment from September 19, 2023, to October 18, 2023. A press release was issued on September 15, 2023, announcing that the EA would be available for public review, and inviting comments online through the Planning, Environment, and Public Comment (PEPC) system or by U.S. mail. A summary of public comments and responses to all substantive comments are included in Attachment A.

SELECTED ALTERNATIVE

Two alternatives were analyzed in detail in the EA. Based on this analysis, the NPS selected Alternative B, Build the Trail. The selected alternative will construct an approximately 6.3-mile trail segment from State Road 49 in Porter, Indiana to Lake Shore County Road in Beverly Shores, Indiana. The trail segment will become part of the Marquette Greenway Trail, a 60-mile regional trail stretching from Chicago, Illinois, to New Buffalo, Michigan. The trail will also be part of the park's East-West Connector Trail connecting Miller Woods to Mount Baldy. The ABA/ADA compliant trail segment will be a ten-foot-wide asphalt trail with two-foot-wide aggregate shoulders on each side. A full description of this alternative can be found in Chapter 2 of the EA.

The selected alternative originally called for the permanent closure of Furnessville Road to all vehicle traffic, and the road would have been used exclusively for the trail. As a result of public comments and analysis, the NPS has altered the selected alternative and Furnessville Road will not be closed to all vehicle traffic. Instead, the road will be converted to a one-way road with the trail occupying the closed lane. This will provide continued access to Furnessville Road from Hadenfelt and Veden Roads for local residents and still allow Furnessville Road to serve as a scenic road for motorists. This change does not alter the impact analysis in the EA.

RATIONALE FOR DECISION

The selected alternative best meets the project purpose and need, which is to build a section of trail to connect to and further complete the broader regional trail system. This trail segment is needed to:

- Provide ABA/ADA connectivity and transportation throughout the park and to adjacent communities with an east-west trail connecting the entire length of the park.
- Connect the park into the regional Marquette Greenway Trail, allowing for regional access to the park from as far away as Chicago.
- Provide non-motorized methods of getting into the park in order to reduce car and parking congestion.
- Promote green and healthy ways of getting to and enjoying the park.

MITIGATION MEASURES

The NPS places strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts during construction. NPS recommends multiple mitigation measures and best management practices to protect the following resources: vegetation and special-status plants (including invasive species), special-status wildlife species, visitor use and experience, wetlands, and cultural resources. These stipulations and mitigations are described in Chapter 2 of the EA.

The authority for this project's mitigations comes from the following laws and policies:

- NPS Organic Act (16 United States Code [U.S.C.] 1)
- National Park Service Management Policies (NPS 2006)
- National Historic Preservation Act (54 U.S.C. 306108)
- Archeological Resources Protection Act (16 U.S.C. 1B)

SIGNIFICANCE CRITERIA REVIEW

Potentially Affected Environment

This project will build an approximately 6.3-mile paved trail segment that is ABA and ADA compliant. Potentially affected resources include vegetation and special-status plants (including invasive species), special-status wildlife species, visitor use and experience, wetlands, and cultural resources.

Vegetation and Special-Status Plants (including invasive species)

1,501 species of vascular plants have been identified within the park, of which 1,196 are native species and 305 are non-native. The limits of disturbance during construction include a width of 25 feet centered on the trail and the 6.3-mile trail segment length, totaling approximately 19 acres. The majority of the ground vegetation along the trail consists of common native species and/or non-native/invasive species with areas along existing trails and roads being the most degraded. However, there are some high-quality native communities where large concentrations of sensitive plant species have been found in the project area. Sixteen species of state-threatened or sensitive plant species were identified during field surveys in 2022. No federally listed threatened or endangered plant species occur in the project area.

Special-Status Wildlife Species

Federally listed threatened and endangered species potentially present in the trail corridor include the Indiana bat (*Myotis sodalis*; federally endangered), the northern long-eared bat (*Myotis septentrionalis*; federally endangered), eastern massasauga rattlesnake (*Sistrurus catenatus*; federally threatened), and Karner blue butterfly (*Lycaeides melissa samuelis*; federally endangered). Additionally, the tricolored bat (*Perimyotis subflavus*; proposed federally endangered) is also potentially present in the project area.

Note: The original threatened and endangered list generated from the USFWS IPaC website on July 7, 2022, did not include the Karner blue butterfly and as such was not included in the EA. A list was generated on November 10, 2023, in preparation to write a Section 7 letter of determination to USFWS. This included the Karner blue butterfly and thus was included in the letter of determination and USFWS has concurred with a determination of “no effect”.

In the summer, all three bats roost under the exfoliating bark of snags and living trees in mature forests with an open understory and a nearby source of water. Field surveys have identified approximately 9.8 acres of suitable summer roosting bat habitat in the construction footprint, of which approximately 2.7 acres are considered high quality.

The eastern massasauga rattlesnake typically inhabits damp lowland habitats, including bottomland forests, swamps, bogs, fens, marshes, sedge meadows, and wet prairies. They are also associated with forest edges near rivers and shrubby fallow fields. Although the species has never been confirmed within the park, two specimens were found near the project area in 2000 and 2003 at the Beverly Shores South Shore Railroad station. There is suitable habitat for the eastern massasauga within the project area.

The Karner blue butterfly requires pine barrens and oak savannas on sandy soils containing wild lupines (*Lupinus perennis*), the only known food source for the larvae. There are no lupines in the project area. Surveys have not found the species in the park in roughly a decade, and on May 16, 2023, the Indiana Natural Resources Commission voted to change the status of the Karner blue butterfly from endangered to extirpated for the entire state.

The project area is comprised of early successional habitat, prairie, and fragmented forest. These communities provide habitat for a variety of migratory bird species. There are 22 migratory bird species of conservation concern with the potential to occur in the project area. See Section 3.3.1 of the EA for more information on these species.

Visitor Use and Experience

Over one million people have visited the park each year since 1979. When the park was re-designated from a national lakeshore to a national park in February 2019, visitation jumped to 2,134,285 and has continued to increase. As of 2021, the park has recorded 3,177,234 visitors and is ranked 9th out of all National parks for number of visitors (NPS 2021). There are currently over 50 miles of hiking trails and 37 miles of multi-use trails within the park, which lead visitors along shorelines and through dunes, wetlands, prairies, river systems, oak savannas, and cultural sites.

The population of the surrounding area has steadily increased over the last several years. The increase in population has led to an increase in park visitation and demand for additional recreation opportunities within the park.

Wetlands

Thirty wetlands have been identified near the project area, totaling 41.3 acres. Table 4 in Section 3.5.1 of the EA summarizes the overall wetland acreage and features identified during the wetland delineation. Twelve wetlands are within the limits of disturbance (nine within the park), totaling 0.34 acres. The remaining 18 wetlands are located adjacent to the trail route and will be avoided. Additional details on wetland features can be found in Appendix A of the EA.

Cultural Resources

Seven new archeological sites were identified during a survey conducted for this project, and one previously identified site was also investigated. One area containing post-contact fill was also located and documented in the field, but due to secondary deposition, lack of artifacts, surrounding wetland, and disturbance, this area was not recorded as a site and no artifacts were collected. Seven additional previously identified archeological sites lie within or adjacent to the area of potential effect (APE) but were unable to be relocated during reconnaissance efforts. See Section 3.6 of the EA for information on cultural resources in the project area.

Degree of Effects of the Action

The NPS considered the following actual or potential project effects in evaluating the degree of the effects (40 CFR 1501.3(b)(2)) for this proposed action.

a. Beneficial and adverse, and short- and long-term effects of the proposed action.

The selected alternative will result in mostly long-term beneficial impacts, and some negligible or minor adverse impacts, as described below.

Vegetation and Special-Status Plants (including invasive species)

No federally listed plant species will be affected by the project. The park worked with Porter County to reroute the trail in several areas to avoid known state plants of concern. In areas where high-quality plants would be disturbed, the park will relocate as many plants as possible outside of the construction area. As soon as construction is complete, the County will rehabilitate disturbed areas. Rehabilitated areas will use NPS-approved native plantings.

Non-native vegetation outside the construction area will be removed as a buffer to the trail, and the park will monitor the trail for invasive species. Approximately 0.5 miles of the trail will run through high quality dune forest between Kemil Road and Teale Road. However, these impacts would be minimized through best management practices described in section 3.5.2 of the EA. There will be minor short-term adverse impacts to vegetation during construction and revegetation before new plantings are well-established. In the long-term, there would be few measurable impacts to vegetation, given the relatively small size of the project area in the context of the entire park and limiting the trail primarily to previously disturbed areas.

Special-Status Wildlife Species

By avoiding all tree clearing activities during the summer roosting season, the selected alternative will have negligible short or long-term impacts on bats that are listed or proposed for listing under the ESA. There is ample roosting habitat adjacent to the trail corridor.

To avoid potential adverse impacts to the eastern massasauga rattlesnake, appropriate exclusion fencing will be installed along suitable habitat during active construction, and regular surveys will be done by a qualified herpetologist. The selected alternative will cause negligible to minor long-term impacts to the eastern massasauga rattlesnake.

The endangered Karner blue butterfly does not have suitable habitat in the project area and is considered extirpated from the state. Therefore, the project will have no effect on the species.

The selected alternative will result in minor short-term adverse impacts to migratory bird species during construction activities. Mobile individuals will likely flush to adjacent suitable habitats. Suitable nesting habitat for many of the special-status species noted by USFWS and Indiana Department of Natural Resource (IDNR) does not occur within the project area, and vegetation will be cleared prior to April 1, prior to the nesting season.

The selected alternative may affect, but is not likely to adversely affect, the Indiana bat, northern long-eared bat, tricolored bat, eastern massasauga rattlesnake, and migratory birds. There will be no effect on the Karner blue butterfly. Impacts will be minimized with the implementation of tree clearing restrictions and exclusion fencing. USFWS concurred with these effect determinations and impact mitigation measures in a letter dated December 18, 2023.

Visitor Use and Experience

There will be short-term adverse impacts to the visitor use and experience while the trail is being built. The long-term impact is highly beneficial, offering an expanded set of user types the ability to see this portion of the park and providing connectivity between the park's non-contiguous units. The trail will also offer non-motorized access to the park and surrounding area.

Wetlands

The project would impact 0.34 acres of wetlands within the park under U.S. Army Corps of Engineers (USACE) analysis. Of these wetlands, 0.008 acres were identified as new or non-excepted impacts under NPS Director's Order #77-1: Wetland Protection and do not require compensatory mitigation. The selected alternative has the potential to result in minor long-term adverse impacts on wetlands. Introduction of fill will permanently impact wetlands, and construction of boardwalks will result in a temporary impact but provide for long-term protection. There could be short-term interference with natural processes of the wetlands during construction, however there would be no change to their long-term processes, functions, and values.

Cultural Resources

The park and County avoided all known archeological resources during the trail design. The NPS determined that the project would have No Adverse Effect on historic properties under Section 106 of the National Historic Preservation Act (NHPA), and the State Historic Preservation Office (SHPO) concurred with the NPS determination. No adverse short or long-term impacts to cultural resources are anticipated.

b. Degree to which the proposed action affects public health and safety.

The selected alternative will not adversely affect public health and safety. The project will provide long-term beneficial impacts to public health and safety by promoting health and wellness.

c. Effects that would violate federal, state, tribal, or local law protecting the environment.

The selected alternative does not threaten or violate applicable federal, state, tribal, or local environmental laws or requirements imposed for the protection of the environment. The park consulted with federal and state agencies and the Tribal Nations traditionally associated with the park. These consultation efforts are summarized below.

Tribal Consultation

On March 21, 2022, formal consultation was initiated with the Miami Tribe of Oklahoma and seven Bands of the Potawatomi (all of whom are traditionally associated with the area now known as Indiana Dunes National park) regarding the granting of the right-of-way easement to the County to reroute the trail from its current location to the proposed location. Additionally, on April 14, 2022, the Winnebago Tribe requested to be included in formal consultation. The park invited all nine Tribal Nations and SHPO staff to participate in a site visit on May 2, 2022, to discuss known archeological resources within the APE. The Miami Tribe of Oklahoma and the Pokagon Band of Potawatomi participated in the walkthrough. As a result of the visit, the proposed trail location was moved to avoid archaeological resources.

On June 13, 2023, an internal draft of the EA was sent by email to nine tribes. The Nottawaseppi Huron Band of Potawatomi's Tribal Historic Preservation Officer responded on June 13, 2023, indicating that they have no objection to the project. The Winnebago Tribe's Cultural Preservation Director on June 16, 2023, responded, "The location is land our ancestors have lived on or passed through. Please include the Winnebago Tribe of Nebraska in any consultation going forward."

U.S. Fish and Wildlife Service – Endangered Species Act (1973)

Stantec, on behalf of the NPS and the County, contacted the USFWS in a letter dated July 7, 2022. The letter requested comments about potential impacts and concurrence with a determination that the proposed project may affect, but is not likely to adversely affect, the federally endangered Indiana bat and the endangered northern long-eared bat. The USFWS responded with an informal Section 7 letter, dated August 5, 2022, requesting additional information. After a meeting on November 15, 2023, with USFWS to discuss the project, the park prepared and submitted a letter of determination for all five listed species on December 3, 2023. On December 18, 2023, USFWS formally concurred with the park's determinations of "may affect, not likely to adversely affect" for the Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*), and eastern massasauga rattlesnake (*Sistrurus catenatus*) and "no effect" for the Karner blue butterfly (*Lycaeides melissa samuelis*).

U.S. Army Corps of Engineers – Section 404 Clean Water Act

The County sent a scoping letter to USACE on July 7, 2022. USACE responded on July 19, 2022, stating that temporary/conversion impacts to waters of the U.S. may require mitigation if they total more than 1.0 acre. On October 12, 2023, USACE suggested that wetland mitigation be completed through enhancement of existing habitat along the proposed trail route. A vegetation survey of the project area identified areas along the trail route where threatened, endangered, or sensitive species were found and are currently threatened by invasive species. Two of these areas are targeted as mitigation for this project (Appendix A, Figures 6.0 – 6.2). Mitigation Area #1 (5.69 acres) includes the stream valley adjacent to Dunes Creek/Munson Ditch and Mitigation Area #2 (6.00 acres) includes a forested wetland/dune forest complex along Furnessville Road. A total of 11.69 acres of land will be enhanced through invasive species removal as mitigation for the wetland impacts associated with construction of the Marquette Greenway Trail project. A Section 404 permit with USACE will be issued before project implementation.

U.S. Department of Agriculture – Farmland Protection Act

The County sent a scoping letter to the United States Department of Agriculture – Natural Resources and Conservation Service (USDA - NRCS) on July 7, 2022. The NRCS has not responded. No farmlands would be affected by the selected alternative.

State Historic Preservation Office – Section 106 Consultation

Agencies which have direct, or indirect oversight of historic properties are required by Section 106 of the NHPA to take into account the effect of any undertaking on properties listed in or eligible for listing in the National Register of Historic Places (NRHP). On July 7, 2022, the NPS sent a letter to the Indiana SHPO requesting concurrence with the NPS determination of No Adverse Effect. On September 15, 2022, the Indiana SHPO concurred with the No Adverse Effect determination and provided recommended mitigation measures. Chapter 3.5 of the EA includes a summary of recommended mitigation measures provided by the Indiana SHPO.

Indiana Department of Natural Resources – Division of Fish & Wildlife

The County sent a scoping letter to the IDNR Division of Fish & Wildlife (DFW) on January 28, 2019, as part of their grant proposal, then reinitiated consultation as part of the EA process on July 7, 2022. The IDNR DFW responded on February 27, 2019, with standard mitigation measures for stream crossings, bank stabilization, wildlife passage, and trail construction. Chapter 3.5 of the EA includes a summary of mitigation measures that are applicable to the selected alternative.

FINDING OF NO SIGNIFICANT IMPACT

Based on the information contained in the EA, I have determined that the proposed action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement will not be required.

This finding is based on consideration of the Council on Environmental Quality criteria for significance (40 Code of Federal Regulations [CFR] 1501.3 [b] (2020)), regarding the potentially affected environment and degrees of effects of the impacts described in the EA (which is hereby incorporated by reference) and as summarized above.

Recommended:

Christopher J. Pergiel
Acting Superintendent
Indiana Dunes National Park

Date

Approved:

Herbert C. Frost, Ph.D.
Regional Director
National Park Service DOI Regions 3, 4, and 5

Date

Attachment A: Public Comment Summary and Errata

On September 19, 2023, Indiana Dunes National Park released the Marquette Greenway Trail Calumet Reroute Segment Environmental Assessment (EA) for public review and comment. A press release was issued on September 15, 2023, announcing that the document was available for public review for 30 days. The public was invited to provide comments online through the Planning, Environment, and Public Comment (PEPC) system at <https://parkplanning.nps.gov/indumgtcalumet> or to mail comments to the park.

During the public review period, 41 correspondences were received through the NPS Planning, Environment, and Public Comment (PEPC) website, two written correspondences were received in person at the visitor center, and no correspondences were received by U.S. mail. Twenty substantive comments were included in these correspondences. Substantive comments are those that question the accuracy of information in the NEPA document, question the adequacy of the environmental analysis, present reasonable alternatives other than those presented in the NEPA document, or cause changes or revisions in the proposal. Comments that merely support or oppose the proposal are not considered substantive.

RESPONSES TO PUBLIC COMMENTS

This section includes responses to all substantive and some non-substantive public comments on the EA. In some cases, several similar substantive comments were combined into one “concern statement” and addressed with a single response. The comments do not change the outcome of the impact analysis, nor do they affect the final decision documented in the Finding of No Significant Impact.

1. CONCERN STATEMENT:

Commenters objected to the proposed closure of Furnessville Road and indicated that such a closure would have impacts on local residents who use the road as an alternative to busier highways and for emergency ingress/egress. Several commenters also suggested that the road be left open as a scenic road.

NPS RESPONSE:

As a result of public comments, the NPS has modified the selected alternative to leave Furnessville Road open for one-way traffic. The Marquette Greenway Trail would occupy the other lane. This would allow for access to Hadenfelt and Veden Roads from Furnessville Road. As described in the Finding of No Significant Impact, this modification of the selected alternative does not alter the impact analysis that was included in the EA.

2. CONCERN STATEMENT:

Commenters were concerned about the disturbance to flora/fauna caused by the construction of the trail.

NPS RESPONSE:

Potential impacts to flora and fauna were carefully considered and fully analyzed in the EA. As described in Chapters 2 and 3 of the EA, several measures will be employed to mitigate impacts to sensitive plant and wildlife species.

3. CONCERN STATEMENT:

Commenters asked the Park to monitor construction activities and follow up after construction on revegetation and wetland mitigation plans.

NPS RESPONSE:

The park will monitor and enforce all permit requirements throughout the construction project. The park has hired several new staff members within the last two years who are dedicated to permits and the monitoring of projects. Monitoring and mitigation measures are described in Sections 2.4 and 3.2 of the EA.

4. CONCERN STATEMENT:

Commenters expressed concern about user safety at road crossings.

NPS RESPONSE:

The project will employ best practices at road crossings such as signs, road striping, and speed bumps to maximize safety. The park and County will work with the Indiana DOT to create a safe crossing at US Highway 12 at Kemil Road. Based on examples of US-12 crossings at other Marquette Greenway Trail locations, a center median, striping, signs, and flashing lights could be incorporated. The crossing of the South Shore Railroad at Kemil Road has a fully separate trail crossing with gates, signs, and lights.

5. CONCERN STATEMENT:

Commenters asked if the park would collect entrance fees from trail users.

NPS RESPONSE:

The proposed trail will be covered under the park's entrance fee policy which includes all existing hiking and shared-use trails. All visitors recreating on the Marquette Greenway Trail are required to have a park entrance pass (7-day or annual) or an applicable interagency pass (e.g., America the Beautiful pass). Visitors using the trail for transportation through the park who are not stopping in the park will not be charged.

6. CONCERN STATEMENT:

Commenters were concerned about the visitor experience of paving 0.4 miles of the 1.2-mile Glenwood Extension Trail. These commenters are local resident long-distance runners.

NPS RESPONSE:

The 1.2-mile extension trail is part of the broader 16-mile Glenwood Dunes Trail system. Only 0.4 miles of the existing 16-mile trail system would be paved. The current western terminus of the extension trail has no parking or trailhead, which makes it exclusive to local residents. The Calumet Segment project would extend the Glenwood Dunes Trail to State Road 49, the Dunes Kankakee Trail, and the park's visitor center. This would open the trail to more visitors and different user types.

7. CONCERN STATEMENT:

Commenter suggested forming a regional trail organization to support the Marquette Greenway Trail.

NPS RESPONSE:

The park agrees that the Marquette Greenway Trail would benefit from a regional trail organization. The park and the Northwestern Indiana Regional Planning Commission (NIRPC) are working together to form the Friends of the Marquette Greenway Trail, which will support the entire 60 miles of the trail. Formation of such an organization is outside the scope of the Calumet Re-Route Segment EA.

8. CONCERN STATEMENT:

Commenters offered several alternatives to the preferred route, including finding a new route within the Northern Indiana Public Service Company (NIPSCO) corridor, crossing US-12 at Teale Road and running the trail between US-12 and the South Shore Tracks, finding a new route north of the NIPSCO corridor but south of Service Avenue on NPS land, and keeping the route on Furnessville Road to Kemil Road and then using Kemil Road from US-20 to US-12.

NPS RESPONSE:

The park investigated the alternatives suggested by the commenters, and most are summarized in Section 2.5 of the EA. Some alternatives suggested were not considered in the EA because of known issues at the start of the project. The County and park wanted to minimize US-12 crossings due to safety concerns. The crossing at Kemil Road was prioritized due to the existing parking lot and comfort station at the United States Geological Survey (USGS) building. Kemil Road is also an existing striped crossing. Adding a second crossing at either Teale Road, Tremont Road, or Furnessville Road was considered but dismissed in favor of a crossing at Kemil Road. Using Furnessville to Kemil was dismissed due to real estate issues, commercial entities, wetlands alongside Kemil, and not being able to close Kemil Road due to high traffic. Service Avenue was chosen over the NIPSCO corridor or adjacent NPS land to reduce impacts to wetlands and also due to NIPSCO's restrictions and terms for trail development on their land. Finally, the route was also chosen to go directly by trailheads and amenities (such as the USGS building and the Beverly Shores Train Station) with no spurs.

ERRATA

This erratum contains minor revisions to the EA. These edits do not result in modifications to the selected action, and do not change the environmental analysis. They are provided to correct typographical errors and clarify the material presented in the EA. Additions to text are underlined, and deleted text is indicated by ~~strikeout~~.

EA - Section 3.3.1 Affected Environment (Page 24):

Eastern Massasauga Rattlesnake

Eastern massasauga rattlesnakes typically inhabit damp lowland habitats, including bottomland forests, swamps, bogs, fens, marshes, sedge meadows, and wet prairies. They are also associated with forest edge near rivers and shrubby old fields (Johnson and Menzies 1993). During the spring and summer months this species often moves into drier, more upland habitats, such as grasslands and farm fields. In most areas, eastern massasaugas are usually active from April or May through October; they are inactive in cold weather. Births occur mainly from late July through early September. ~~Stantec did not document habitat for this species within the project area and the NPS has no records of this species within the project area.~~ The project area contains appropriate habitat for the eastern massasauga, and two specimens have been found in the Beverly Shores area in the past. The USFWS responded to scoping that there are known occurrences of eastern massasauga within the project area, notably within Beverly Shores near the South Shore Railroad station in Section 7.

EA - 3.3.2.2 Alternative B – Build the Trail (Page 25):

No known Indiana bat, NLEB, or tricolored bat maternity roost trees were documented in the project area. With the exception of Section 5, suitable habitat for bats is located within all trail Sections.

There is suitable habitat for the eastern massasauga rattlesnake within the project area, with occurrences known around Beverly Shores. To avoid potential adverse impacts to eastern massasauga during construction, ~~and consultation for impacts would need to occur with the USFWS. It is anticipated that following consultation,~~ appropriate exclusion fencing ~~may will~~ will need to be installed along suitable habitat during active construction, and regular surveys ~~would will~~ will be done by a qualified herpetologist.

EA - 3.5.1 Affected Environment (Page 27):

~~Eight~~ 12 of the wetlands are bisected by the trail (9 within the park), the remaining ~~22~~ 18 wetlands are located adjacent to the trail route.

EA - Section 3.5.2.2 Alternative B – Build the Trail (Page 28):

The project would consist of both new trail as well as improvements and realignments of existing trails with permanent existing wetland impacts totaling approximately 0.8 acres in the project area (~~0.4~~ 0.34 acres in the national park) as a result of fill or the installation of boardwalks.

EA - Appendix A Wetland Delineation Report (Page 4):

The following report documents the jurisdictional and non-jurisdictional features within the identified project limits for the Marquette Greenway Trail project within the ~~Town of Burns Harbor~~ Towns of Porter and Beverly Shores.

EA - Appendix A Wetland Delineation Report (Pages 4 and 30):

~~6.8-mile trail~~ is replaced with 6.3-mile trail.

EA - Appendix B Floristic Quality Assessment (Pages 4):

~~6.8 miles~~ is replaced with 6.3 miles.

WSOF - (Pages 5, 6, 10, and 12):

~~Dunes Creek~~ is replaced with Munson Ditch.

WSOF - 1.0 Introduction (Page 3):

Development of the 6.3-mile trail project requires ~~45~~ 46 individual wetland impacts on NPS land.

Six wetland impacts would be mitigated with raised boardwalk construction, ~~38~~ 39 impacts to previously disturbed areas would be excepted from further compliance with Director's Order #77-1: Wetland Protection, and one 0.008-acre wetland impact does not require compensation.

WSOF - 4.3 Palustrine Wetlands: Forested, Scrub-Shrub, and Emergent Wetlands (page 6):

Thirty wetlands were identified and ~~10~~ 12 of these would be impacted by the trail project (9 within the park).

WSOF - 5.1 Biotic Functions (Page 7):

Alternative B – Build the Trail would result in minor, localized, direct impacts on aquatic species and habitats. There would be a loss of ~~0.26~~ 0.34 acres of wetland habitat.

WSOF - 7.1 Avoidance and Minimization (Page 12):

To minimize and avoid new wetland impacts, this trail is routed along the existing roadbeds. The majority of the impacts (~~0.247~~ 0.329 acres of the ~~0.26~~ 0.342 acres total) is fill along the toe of slope of the roadbeds to rebuild eroded side slopes.

There are ~~45~~ 46 individual wetland impacts associated with the project on NPS land, ~~44~~ 45 of which are considered excepted actions for either boardwalk installation, minor stream crossings, or maintenance or repair of existing structures (roadbeds).



December 19, 2023

DETERMINATION OF NON-IMPAIRMENT Marquette Greenway Trail: Calumet Reroute Section ENVIRONMENTAL ASSESSMENT Indiana Dunes National Park, Indiana

National Park Service (NPS) *Management Policies 2006* (Section 1.4) requires analysis of potential effects to determine whether proposed actions will impair a national park's resources and values. NPS decision makers must always seek ways to avoid or to minimize, to the greatest degree practicable, adverse impacts on park resources and values. The NPS has the management discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of the park, although that discretion is limited by the statutory requirement that the NPS must leave resources and values unimpaired unless a particular law directly and specifically prescribes otherwise.

An impairment is an impact that, in the professional judgment of the responsible NPS decision maker, will harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values. An impact on any park resource or value may, but does not necessarily, constitute impairment. An impact will be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the Park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact may be less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of Park resources or values, and it cannot be further mitigated.

Impairment may result from visitor activities, NPS administrative activities, or activities undertaken by concessioners, contractors, and others operating in the Park. Impairment may also result from sources or activities outside the park. An impairment determination is not made for subject matters such as visitor experience, public health and safety, socioeconomics, environmental justice, land use, and park operations because impairment determinations only relate to resources and values that maintain the park's purpose and significance. Additionally, this determination applies only to NPS lands.

Vegetation and Special-Status Plants (including invasive species)

The selected alternative would impact the limits of disturbance, totaling approximately 19 acres, during construction which includes the approximately 25-foot-wide corridor along the 6.3-mile trail segment. Over 11 acres will occur on existing roads or trail portions, whereas approximately 3.5 acres of permanent impacts and 3.8 acres of temporary impacts will occur in relatively undisturbed areas. A component of the selected alternative includes the removal of non-native vegetation outside the construction area as a buffer to the trail as part of wetland mitigation. The County worked with park staff to select an alignment to minimize impacts to unique and sensitive native vegetation, however, the proposed trail alignment will have impacts to plant species of concern.

As soon as construction is complete, the County will rehabilitate disturbed areas. Rehabilitated areas will use NPS-approved native plantings, neonicotinoid (neuro-active insecticides) free, weed, weed seed and debris free, and no-mow native seed mixtures with an emphasis on pollinator species habitat to minimize the resources required for mowing (bi-annually). The County will submit proposed seed mixes and source of materials to the NPS prior to the start of construction.

The park has a Cooperative Management Agreement with the County outlining trail maintenance and management. The County will maintain sections of the trail that are not on park land. All maintenance and management would meet NPS requirements such as wildlife proof trash bins, proper vegetation management, and trail surface treatment. Visitor foot traffic facilitates the movement of invasive vegetation seed and disturbs the soil allowing for the establishment of new invasive vegetation. The park will monitor the trail for intrusion of invasive species.

The proposed action will have minor adverse impacts to vegetation. The community most impacted by the project is dune forest (i.e., about 50 percent of the proposed trail corridor) which includes intact dune forest dominated by oak species (*Quercus* spp.) with a native understory, disturbed upland forest with a canopy of native tree species but a disturbed understory, as well as upland forest that is almost entirely dominated by non-native species. Approximately 0.5 mile of the trail will run through high quality dune forest between Kemil Road and Teale Road. However, a large portion of the proposed trail will be on existing roadbeds thus avoiding any vegetation disturbance.

There are areas of high-quality plants along proposed route options. The park worked with the County to reroute the trail in several areas to avoid all known plants of concern, and much of the trail has been designed to follow existing roadbeds. The park worked with the County to reroute the trail in several areas to avoid as many plants of concern as possible by rerouting the trail in many areas. However, not all plants of concern will be avoided; therefore, some of the plants will need to be relocated to minimize disturbance. Specifically, eastern teaberry (*Gaultheria procumbens*) is a common species in certain areas, and it was not possible to completely avoid impacts to this sensitive species.

In the long-term, there would be little measurable impacts to vegetation given the relatively small size of the selected alternative in the context of the entire park. Limiting the trail primarily to disturbed areas (i.e., approximately two-thirds of the trail being constructed on existing/former roadbeds), and the impacts are small in scale and limited in duration. Therefore, the selected alternative would not constitute an impairment to vegetation and special-status plants.

Special-Status Wildlife Species

The selected alternative would not impact maternity roosts for Indiana bat, northern long-eared bat (NLEB), or tricolored bat as none were documented in the trail corridor. The construction of the trail will require the removal of trees along the entire trail. To avoid potential adverse impacts, tree removal would not occur between April 1 and October 1 (active bat season). Although some trees that may be used for summer roosting by these bats may be cleared, similar habitat is widely available adjacent to the trail corridor. Noise levels would increase during construction for an estimated duration of six months as a result of construction activities such as excavation and grading. These activities would take place during the day and would not disrupt foraging bats.

Potential habitat for the eastern massasauga rattlesnake occurs within the trail corridor and two verified sightings occurred in 2000 and 2003 near the Beverly Shores South Shore Railroad station. Appropriate exclusion fencing will be installed along suitable habitat during active construction, and regular surveys will be done by a qualified herpetologist. The trail may attract snakes and other reptiles for thermoregulation or nesting along the edges and these species are at greater risk for mortality by trail users.

The Karner blue butterfly requires pine and oak savannas/barrens on sandy soils containing wild lupines (*Lupinus perennis*), the only known food plant of the larvae. There are no lupines in the project area. Also, on May 16, 2023, the Indiana Natural Resources Commission voted to change the status of the Karner blue butterfly from endangered to extirpated for the entire state.

Should any migratory bird species be present within the trail corridor during the proposed construction activities, mobile individuals would likely flush into adjacent suitable habitats. Suitable nesting habitat for many of the special-status species noted by USFWS and IDNR does not occur within the trail corridor. Due to the relative abundance of similar suitable habitat nearby, and the project plan to clear vegetation prior to April 1 (to meet protected bat species requirements), adverse impacts to populations of migratory birds are not anticipated.

Overall, the selected alternative would result in minor adverse impacts to the Indiana bat, NLEB, and tricolored bat species, eastern massasauga rattlesnake, as well as migratory birds. There would be no impact to the Karner Blue Butterfly. However, these impacts would be minimized with the implementation of tree clearing restrictions and other minimization measures. Impacts to sensitive wildlife species are also expected to be minimized through methods of partial road closure and therefore creating less traffic. The habitat along most of the reroute is also degraded in the woodlands and savannas mostly due to the presence of non-native species.

Wetlands

Wetland impacts will total approximately 0.34 acres in the park as a result of fill and the installation of boardwalks. The selected alternative has the potential to adversely affect wetlands. Introduction of fill will permanently impact wetlands, whereas the boardwalks will result in a temporary impact. Any interruptions to the wetlands may result in a short-term interference with their natural processes but there would be no change to their overall functions and values. Therefore, the selected alternative would not constitute an impairment to water resources and wetlands.

Cultural Resources

The selected alternative would disturb the ground surface and subsurface as a result of construction of the trail. The ABA/ADA compliant trail would be a 10-foot-wide asphalt trail with 2-foot-wide aggregate shoulders on each side and would be approximately 6.3 miles in length. Typical trail construction disturbance would be approximately 8 inches in depth. In addition, the selected alternative would include areas of temporary disturbance. A 25-foot-wide envelope of disturbance is anticipated during the construction of the trail.

The selected alternative has the potential to adversely impact unknown archeological sites and artifacts in the APE. Adverse impacts could be permanent if damage ensues but would not result in additional impacts to cultural resources in a measurable way. Therefore, the selected alternative would not constitute an impairment to cultural resources.

Conclusion

As guided by the expected outcomes noted above, implementing the selected alternative does not constitute impairment of any resource or park value whose conservation is: (1) necessary to fulfill specific purposes identified in establishing legislation or proclamation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or (3) identified as a goal in the park's general management plan or other relevant NPS planning documents as being of significance. This conclusion is based on the consideration of the purpose and significance of the park, a thorough analysis of the environmental impacts described in the environmental assessment, relevant scientific studies, the comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction of NPS.