

Appendix M

Biological Resources Analysis

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Appendix M

BIOLOGICAL RESOURCES ANALYSIS

M.1 Background

The Canadian National Railway Company and Grand Trunk Corporation (collectively, CN or the Applicants) are seeking authorization from the Surface Transportation Board (Board) to acquire control of EJ&E West Company, a wholly owned non-carrier subsidiary of Elgin, Joliet and Eastern Railway Company (EJ&E). In Appendix M the Board's Section of Environmental Analysis (SEA) evaluated the potential effects on biological resources related to the acquisition. SEA's methods for evaluating potential effects on natural resources focus on the following areas:

- Biological resources, including Federally and State listed threatened and endangered species; protected wildlife habitats and migration corridors; wildlife refuges and sanctuaries; national, state and/or local parks or forests; and protected unique or critical habitats

M.2 Biological Resources Methodology

The Applicants are proposing to acquire control of EJ&E West Company and to use the EJ&E rail line to connect all five of CN's rail lines in Chicago (the Proposed Action). The SEA evaluated the potential effects of the Proposed Action and constructions and alternatives on the biological resources. SEA used the methodology presented herein to analyze the following:

- Federally and state-listed threatened and endangered species
- Sensitive natural resources, critical habitat, and migration corridors
- National, state and/or local parklands, forest preserves, refuges, and wildlife sanctuaries

M.2.1 Applicable Regulations and Guidance

To conduct the review of natural resources, SEA used methodologies in accordance with Federal regulations and guidelines. These regulations include the following: 1) the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] 4321-4347), 2) the Board's regulations (49 Code of Federal Regulations [CFR] 1105), and 3) guidelines published by the Council on Environmental Quality (CEQ) on implementing NEPA (40 CFR 1500).

SEA analyzed the potential effects of the Proposed Action to help ensure compliance with other Federal and State laws regarding the following natural resources:

- Federally listed threatened, endangered, and candidate plant and animal species, regulated by the Endangered Species Act of 1973 as amended (16 USC 1531-1544 et seq.).
- State-listed species regulated by the Illinois Endangered Species Protection Act (520 Illinois Compiled Statutes [ILCS] 10), Illinois Natural Areas Protection Act (525 Illinois Compiled Statutes [ILCS] 30), Indiana Nongame and Endangered Species Act of 1973 (Indiana Code [IC] 14-22-34), Indiana Nature Preserves Act (IC 14-31-1) and Indiana Department of Natural Resources (IN DNR) fish and wildlife administrative rules (312 Indiana Administrative Code [IAC] 9).
- Migratory bird or bird nest, egg, or product as regulated by the Migratory Bird Treaty Act of 1918 (16 USC 703-712 as amended).

- Resources considered under the Fish and Wildlife Coordination Act as amended (16 USC 661-667c) and Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 USC 1401 et seq.).
- Executive Order 13112, Invasive Species, 1999

M.2.2 Data Sources

SEA evaluated data from the following sources in its review of potential effects on natural resources as a result of the Proposed Action:

- U.S. Geological Survey (USGS) 7.5-minute series topographic maps
- Aerial photographs
- State and local agency consultation including Illinois Department of Natural Resources (IL DNR), IN DNR, and county planning and environmental offices
- U.S. Fish and Wildlife Service (USFWS) information on threatened, endangered, and candidate species, sensitive resources, critical habitat, wildlife refuges and sanctuaries, and parklands
- Letters, memoranda, reports, and papers concerning plant communities, threatened and endangered species, critical habitat, and other natural resources
- Internet databases, geographic information systems (GIS) data, and other pertinent on-line information
- Field review of construction areas associated with the Proposed Action

M.2.3 Screening Process

SEA evaluated the potential for impacts on natural resources related to the Applicants acquiring control of the EJ&E land, rail, and related assets. SEA also focused its analysis on the potential for impacts on natural resources from the proposed construction of six new rail connections, installation of double track, and modifications within existing rail yards.

SEA made this determination after reviewing previous studies that concluded that operational changes (that is, increases or decreases in the number of trains on a rail line segment and increases or decreases in activity at a rail yard or intermodal facility) typically have little direct effect on natural resources (Board 1998¹; 1999²). Therefore, SEA focused its analysis of potential natural resource effects on activities relating to operational changes or construction activities. Specifically, SEA analyzed potential effects on natural resources and habitat within a 0.5-mile on either side of the rail line where operational increases of greater than one train per day were anticipated or construction activities were proposed.

M.2.4 Analytical Methods

The following sections discuss the assumptions, evaluation criteria, and analysis SEA followed to evaluate potential effects on natural resources as a result of the proposed construction activities. SEA conducted its analysis through 1) the collection and review of data, 2) consultation with government agencies, 3) field reviews, and 4) the evaluation of effects. The following sections discuss these methods.

¹ Board. Proposed Conrail Acquisition, Finance Docket No. 33388, 1998.

² Board. Proposed CN/IC Acquisition, Finance Docket No. 33556, 1999.

M.2.4.1 Data Collection and Review

SEA obtained relevant data from a variety of sources to analyze the potential effects of the proposed construction activities on natural resources. SEA searched the Internet for natural resource listings, including databases of threatened, endangered, and candidate species developed by Federal and state agencies. SEA also reviewed USGS topographic maps and contacted local parks departments to determine the location of national, state, and or local parks and forests within 0.5 mile of the proposed construction activities.

M.2.4.2 Consultation with Government Agencies

SEA consulted with appropriate federal and state agencies (U.S. Environmental Protection Agency [EPA], USFWS, IL DNR, IN DNR) and invited comments from them. SEA used this information to identify the following items that could be affected by operational changes or proposed construction activities: 1) Federal and State-listed threatened or endangered species, 2) protected wildlife habitats and migration corridors, 3) wildlife refuges and sanctuaries, and 4) unique or critical habitats.

M.2.4.3 Field Review

SEA visited the proposed construction areas previously determined to have the most likely potential for impacts on natural resources. SEA based their determination of site visit locations on species information from the reference material, consultation with appropriate Federal and state agencies, and general site survey photographs.

During each site investigation, SEA characterized the natural environment and determined the potential effects of the proposed construction activities on natural resources. SEA conducted a reconnaissance, completed data summaries, mapped and collected GPS data on the pertinent natural resources, and photographed the proposed construction areas. The field reviews do not include species-specific surveys.

M.3 Natural Areas

Natural areas and wildlife habitat were assessed for potential effects that may be caused by the Proposed Action and/or constructions. The following descriptions provide further detail of the analysis of potential impacts to natural areas performed by SEA.

M.3.1 Natural Areas with Potential for Impacts

M.3.1.1 Cuba Marsh Forest Preserve, INAI Site 1238

The EJ&E bisects the western half of Cuba Marsh near EJ&E Segment 14C. No construction is planned in this segment, but train traffic on it would increase from 5.3 to 20.3 trains per day. The increased train traffic would cause more noise and vibration and increase the potential for animal/train collisions. At 500 feet from the rail segment, noise is predicted to increase by an average of 6 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, animals in the area already live with daily noise from trains. The increase in the number of trains and the increased potential for animal/train collisions is not anticipated to adversely affect any particular animal populations. Likewise, maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.1 Spring Creek Valley Forest Preserve

There are no construction impacts to Spring Creek Valley Forest Preserve because no construction is planned for EJ&E Segment 14D. However, average traffic on this segment is proposed to increase from 5.3 to 20.3 trains per day. Increased train traffic is expected to increase noise and vibration and the potential for animal/train collisions. The wetland, grassland, and shrub land habitats within 500 feet of EJ&E Segment 14D are predicted to experience an increase in noise levels of 6 dBA. The increased noise could impact use of these restored habitats by wildlife, and could reduce breeding bird density within these management areas. However, SEA expects noise impacts to be minor, as specific habitat and area requirements likely are more important factors for wildlife using this preserve. In addition, species in this area already live with daily noise from trains, and SEA does not anticipate a particular effect from increased noise. The evaluation does not anticipate the increased potential for animal/train collisions would adversely impact any particular animal populations. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.2 Arthur L. Janura Forest Preserve, Shoe Factory Road Prairie Nature Preserve, and INAI Site 0394

The Arthur L. Janura Preserve is adjacent to EJ&E Segment 14D. The preserve also includes INAI 0394 and the Shoe Factory Road Prairie Nature Preserve. No construction is planned for this segment. However, the Applicants propose to increase traffic on the segment from 5.3 to 20.3 trains per day. SEA expects increased train traffic would increase noise and vibration and the potential for animal/train collisions. Noise levels 500 feet from the rail segment are projected to increase an average of 6 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, species in the area already live with daily noise from trains. The evaluation does not anticipate a particular impact from increased noise. Similarly, the increased potential for animal/train collisions is not anticipated to adversely affect any particular animal population. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.3 James “Pate” Philip State Park

James “Pate” Philip State Park is adjacent to EJ&E Segment 13B. Habitat includes grasslands (savannas), prairies, and wetlands. No construction is planned for the rail segment near the preserve. However, the Applicants propose to increase traffic on the segment from 5.5 to 22.5 trains per day. SEA expects increased train traffic would increase noise and vibration and the potential for animal/train collisions. Noise levels 500 feet from the rail segment are predicted to increase an average of 6 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, species occurring in the area already live with daily noise from trains. The evaluation does not anticipate a particular impact from noise. Likewise, the increased potential for animal/train collisions is not anticipated to adversely affect any particular animal populations. SEA expects maintenance on the rail embankment through the preserve would be similar to current practices.

M.3.1.1.4 Pratt’s Wayne Woods Forest Preserve and INAI 1401

Pratt’s Wayne Woods Forest Preserve is the Forest Preserve District of DuPage County’s largest holding. The preserve includes INAI 1401. EJ&E Segment 12 bisects grassland (savannas) and marshes within the preserve. This preserve contains an expansive complex of prairies, grasslands,

meadows, wetlands, and open water (Larson 1998b)³. Habitat within the preserve supports numerous species of T&E birds and remains one of the most important sites for the preservation of grassland bird populations in the area (Schennum and Clark 2000)⁴. In addition, diverse riparian wetlands surround two moderate-quality, low-gradient, prairie streams (Brewster Creek and Norton Creek) that bisect the preserve.

The Proposed Action (Munger connection) would directly affect Brewster Creek; Powis Marsh (a monoculture wetland marsh); Powis Woods (immature upland forest); Stearns Marsh West (prairie/wetland creation); Camp Prairie (mesic prairie); and Shop Meadow (tall-grass meadow), all of which are within Pratt's Wayne Woods Forest Preserve. In addition, Powis Marsh contains and provides habitat for Blanding's turtle (*Emydoidea blandingii*), a state-listed endangered species (further discussed in Section 4.11.7.11). Direct adverse impacts to Pratt's Wayne Woods Forest Preserve would occur. The Applicants propose to increase train traffic on the segment from 4.4 to 23.4 trains per day, resulting in increased noise, vibration, and the potential for animal/train collisions. Noise levels 500 feet from the rail segment are projected to increase an average of 7 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, species in the area already live with daily noise from trains. The increased noise is not expected to have a particular effect. SEA's evaluation does not anticipate that the increased potential for animal/train collisions would adversely impact any particular animal populations. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

Other Munger Alternatives:

- **Munger Alternative – Original Proposal:** This Alternative would directly affect Brewster Creek, Powis Marsh (a monoculture wetland marsh) and Powis Woods (immature upland forest) by direct construction activities. The boundaries of each of these named communities and INAI designated sites cross the ownership boundaries of the forest preserve though most of the proposed construction would take place on Com-Ed and Railroad ROWs. This alternative proposed approximately 0.56 acres of direct impact to Forest Preserve Property in the form of construction, fill and tree removal. This alternative would have similar, but larger adverse impacts to the Powis Marsh complex in the form of construction and filling at the margins, reducing the overall size of the habitat area of the marsh. Wetland impacts would require delineation and permitting through the DuPage County Stormwater and Floodplain Ordinance as a Special Management Area and USACE Section 404 permits. Powis Woods would be directly impacted by tree clearing and embankment construction, representing a direct loss of forested area within the Forest Preserve. The EJ&E rail line currently crosses Brewster Creek at the southern end of the proposed construction area and the CN crosses a small tributary of Brewster Creek west of the railroad crossing. These existing crossings have been identified (Forest Preserve District of DuPage County 2005⁵) as barriers to movement of Blanding's turtle (*Emydoidea blandingii*), a state-listed endangered species (further discussed in Section 4.11.7.11). Marsh complexes both east and west of the CN contain and provide habitat for this species. The proposed action may provide an opportunity to benefit this species if turtle crossings are provided as part construction activities.

³ Larson, C. 1998b Winter. "Into the Wild, Pratt's Wayne Woods, DuPage County, IL". Chicago Wilderness Magazine. Retrieved on March 4, 2008. <http://chicagowildernessmag.org/issues/winter1998/TWprattswayne.html>.

⁴ Schennum, W. and D.Clark. 2000. "Chicago Wilderness Fox River Watershed Biodiversity Inventory". Retrieved on March 5, 2008. <http://www.nipc.org/environment/sustainable/docs/foxwatershed/home.htm>.

⁵ Forest Preserve District of DuPage County. 2005. Pratt's Wayne Woods Environmental Pressures Study – Wildlife and Wildlife Habitat Section (CDBDL Project # 01-541). Prepared by Christopher B. Burke Engineering, Ltd. Rosemont, Illinois.

Noise and vibration, temporary construction and maintenance impacts are expected to be similar to the proposed alternative.

- **Munger Alternative – UP Connection:** This alternative would not directly impact habitat within Pratt's Wayne Woods due to construction activities. Traffic would increase on the UP line by an additional 2 trains per day, resulting in increased noise, vibration, and the potential for animal/train collisions in the Pratt's Wayne Woods area. Noise levels 500 feet from the rail segment are projected to increase an average of 7 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, species in the area already live with daily noise from trains. The increased noise is not expected to have a particular effect. SEA's evaluation does not anticipate that the increased potential for animal/train collisions would adversely impact any particular animal populations. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.
- **Munger Alternative – Northwest Quadrant:** This alternative would shift the construction limits to the Northwest quadrant of the CN/EJ&E crossing. This alternative would directly impact 2.38 acres of Pratt's Wayne Woods Forest Preserve lands due to construction and filling. Stearns Marsh West, including a combination of marsh and restored prairie would be directly impacted both east and west of Powis Road. The alternative would require widening of the embankment over the Brewster Creek Tributary crossing north of the CN along the EJ&E embankment. If this crossing is currently undersized, replacement may represent an improvement over existing conditions. The alternative would directly impact an unnamed Giant Reed Grass monotype marsh, though the impact would largely be confined to the northern edge of this marsh, and outside of the habitat area represented by Powis Marsh.

Noise and vibration, temporary construction and maintenance impacts are expected to be similar to the proposed alternative but would shift to the Stearns Marsh West (prairie restoration and marsh) and Camp Prairie areas.

M.3.1.1.5 West Chicago Prairie Forest Preserve, INAI 0505, and Truitt-Hoff Nature Preserve

West Chicago Prairie Forest Preserve lies adjacent to EJ&E Segment 12. The preserve contains high-quality natural communities, including prairie, marsh, savanna, sedge meadow, and flatwoods (Larson 1998a). The preserve contains EORs for the Federally-threatened eastern prairie fringed orchid (*Platanthera leucophaea*) (further discussed in Section 4.11.6.3), Mead's milkweed (*Asclepias meadii*) (further discussed in Section 4.11.6.5) and the state-listed Blanding's turtle (further discussed in Section 4.11.7.11). The EJ&E bisects the preserve, with the West Chicago Yard along the south and southeast portions of the natural area. No construction is planned for the segments of the EJ&E near the preserve. However, the Applicants propose to increase traffic on the segments from 4.4 to 23.4 trains per day. The additional train traffic is expected to result in increased noise, vibration and the potential for animal/train collisions. Noise levels 500 feet from the rail segment are predicted to increase an average of 7 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, species occurring in the area already live with daily noise from trains. The increase in the number of trains is not anticipated to have a particular effect, and the increased potential for animal/train collisions is not expected to adversely affect any particular animal populations. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.6 Fermi National Accelerator Laboratory

Fermilab, which adjoins a portion of the western half of the EJ&E, contains agricultural and restored land divided into ecological land management (ELM) tracts. Fermilab is widely known for its resident breeding bird populations and attractiveness to hundreds of species of birds during the spring and fall migration (Fermilab 2008)⁶. No construction is planned for EJ&E Segment 11, which adjoins the preserve. However, the Applicants propose to increase traffic on the segment from 10.7 to 31.6 trains per day. The additional trains are expected to increase noise, vibration, and the potential for animal/train collisions. Noise levels 500 feet from the rail segment are projected to increase an average of 5 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, species occurring in the area already live with daily noise from trains. The increase in noise is not anticipated to have a particular affect. SEA also does not anticipate the increased potential for animal/train collisions would adversely impact any particular animal populations. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.7 IDNR EOR Animal Assemblage - Rookery

This unnamed EOR rookery is near EJ&E Segment 10A, within 500 feet of the Proposed Action (Walker to East Siding double track). It could experience a temporary risk of impacts during construction. The Applicants propose to increase train traffic on this segment from 10.7 to 31.6 trains per day. SEA predicts the increased train traffic will increase noise, vibration, and the potential for animal/train collisions. Noise levels 500 feet from the rail segment are projected to increase an average of 4 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, birds within the rookery already live with daily noise from trains, and SEA does not anticipate a particular effect from increased noise. The increased potential for animal/train collisions is low, and SEA does not anticipate any adverse impacts to the rookery. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.8 Weisbrook Preserve

Weisbrook Preserve is located near segments EJ&E 10C and 10D. The Forest Preserve District of Will County plans to restore this area and develop a 1-mile trail (preserve) on the abandoned Normantown Road. Weisbrook is adjacent to the proposed Walker to East Siding double track. In addition, the Proposed Action includes an increase in train traffic from 15.7 to 39.5 trains per day. The Forest Preserve District does not manage this preserve for wildlife or habitat, so impacts from increased noise and vibration and animal/train collisions on wildlife and/or habitat are considered to be minimal. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.9 Lake Renwick Forest Preserve, INAI 1748, INAI 1060, and IDNR EOR Animal Assemblage – Rookery, and Lake Renwick Heron Rookery Nature Preserve

The Lake Renwick Preserve includes the Lake Renwick Heron Rookery (LRHR) Nature Preserve and INAI 1060 and 1748. EJ&E Segment 9B bisects the preserve, dividing Lake Renwick. The area south of the rail line is known as the LRHR and is widely considered the most significant rookery in Illinois. This rookery is the only one in Illinois to attract five different species annually: great blue

⁶ Fermilab. 2008. Birds of Fermilab. Retrieved on March 10, 2008.
<http://www.fnal.gov/pub/about/campus/ecology/wildlife/birds.html>

herons (*Ardea herodias*), great egrets (*Ardea alba*), black-crowned night herons (*Nycticorax nycticorax*), double-crested cormorants (*Phalacrocorax auritus*), and cattle egrets (*Bubulcus ibis*) (DeMauro 1993)⁷. No construction is planned for the segment of the EJ&E near the LRHR. However, traffic on the segment is proposed to increase from 18.5 to 42.3 trains per day, bringing increased noise, vibration, and the potential for animal/train collisions. Noise levels 500 feet from the rail segment are projected to increase an average of 4 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, birds within the rookery already live with daily noise from trains. Flushing events from trains and/or train noise have been documented at the rookery (DeMauro 1993); however results were based on observation of four events. SEA does not anticipate a measurable impact from increased train noise. SEA also does not anticipate the increased potential for animal train collisions will adversely affect the rookery. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.10 Joliet Iron Works Forest Preserve/Heritage Trail

The Joliet Iron Works Forest Preserve/Heritage Trail is adjacent to EJ&E Segment 8A. This site is maintained as a walking trail, and contains a restored floodplain forest. No construction is planned for the segment adjacent to the site. However, traffic is proposed to increase from 18.5 to 42.3 trains per day. Since this preserve is not being managed for wildlife or habitat, the evaluation considers impacts from increased noise and vibration and animal/train collisions on wildlife and/or habitat to be minimal. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.11 Old Plank Road Trail

The Old Plank Road Trail is a rail-to-trail conversion site surrounded by various prairie remnants, wetlands, and savanna habitats. Only a small portion of the trail at its beginning and near its end falls within the Study Area. The western portion of the trail is adjacent to EJ&E Segment 7A, where the Applicants propose to increase train traffic to from 6.4 to 28.3 trains per day. Since this preserve is not being managed for wildlife or habitat, impacts from increased noise and vibration and animal/train collisions on wildlife and/or habitat are considered minimal. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.12 Wauponsee Glacial Trail Forest Preserve

Wauponsee Glacial Trail Forest Preserve is a rail-to-trail conversion site still being developed. The western portion of the trail is in a proposed construction area for a section of double track adjacent to EJ&E Segment 7B. The Applicants propose to increase traffic on this rail segment from 6.4 to 28.3 trains per day. Since this preserve is not being managed for wildlife or habitat, impacts from increased noise and vibration and animal/train collisions on wildlife and/or habitat are predicted to be minimal. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.13 Sugar Creek Forest Preserve

Sugar Creek Forest Preserve is adjacent to EJ&E Segment 7B. The preserve contains floodplain forest, which appears to be fragmented. No construction is planned for this segment. However, the Applicants propose to increase traffic on it from 6.4 to 28.3 trains per day. The additional trains

⁷ DeMauro, M. M. 1993. Colonial nesting bird responses to visitor use at Lake Renwick heron Rookery, Illinois. *Natural Areas Journal* 13:4-9.

would increase noise, vibration, and the potential for animal/train collisions. Noise levels 500 feet from the rail segment are predicted to increase an average of 6 dBA. Within 500 feet of the rail line, increased noise could affect animal behavior and mask wildlife communication signals. However, species in the area already live with daily noise from trains, and no particular impact is expected from additional noise. The increased potential for animal/train collisions is not anticipated to adversely affect animal populations. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.14 Sauk Trail Woods and Indian Hill Woods Forest Preserve

Sauk Trail Woods and Indian Hill Woods Forest Preserve, part of the Thorn Creek Trail System, are on opposite sides of EJ&E Segment 6. The preserves contain Sauk Lake and Thorn Creek, plus miles of paved bike trails and off-trail dirt paths. Sauk Trail Woods contains numerous ravines and valleys and is mostly dense upland forest. No construction is planned for this segment of the EJ&E. However, the Applicants propose to increase traffic on the segment from 8.6 to 31.6 trains per day. Since this area is not being managed for wildlife or habitat, SEA anticipates minimal impacts from increased noise and vibration and animal/train collisions on wildlife and/or habitat. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.15 Gaylord Butterfly Tract

The Gaylord Butterfly Tract is adjacent to and south of EJ&E Segment 5B. It is considered part of the Indiana Dunes National Lakeshore. The preserve contains a mix of high-quality wet meadow, prairie, and savanna and provides habitat for a range of state-listed plant and animal species, including four listed butterfly species and two listed amphibians (see Section 4.11.7). No construction is planned near the Gaylord Butterfly Tract, but traffic on the segment would increase from an average of 10.2 to 34.2 trains per day. Railroad buildings, parking, and an existing rail yard lie on the other side of the tracks. The increase in traffic could slightly increase the risk of animal-train collisions, but the risk is not considered significant due to existing land uses. Maintenance on the rail embankment through the preserve is expected to be similar to current practices.

M.3.1.1.16 Ivanhoe South

Multiple sites comprise Ivanhoe South, which is owned by the Shirley Heinze Land Trust. These sites, adjacent to EJ&E Segment 2, are remnant dune and swale landscapes, which are considered globally imperiled. They provide habitat for at least three listed butterflies, one mammal, a marsh bird species, three amphibians, and a reptile. These sites are of particular importance due to their mixed character of woodland and openings. They provide good habitat for the Federal listed Karner blue butterfly. As such, they have been used to release the butterfly to rebuild its population.

The Proposed Action involves construction of a connection directly south, across two sets of rail lines from the Ivanhoe South site. The Applicants propose construction on previously graded land that contains a mix of ponds and railroad embankment. Construction is not expected to affect habitat in the adjacent dune and swale preserve.

Although no construction is planned in the preserve, the Applicants propose to increase traffic on EJ&E Segment 2 from an average of 9.8 to 29.8 trains per day. Direct impacts to species are possible from train-animal collisions. Direct adverse impacts from maintenance on the rail embankments may increase if these activities are ill-timed (for example, herbicide application or mowing during foraging). Conversely, these same corridors between preserve sites are recognized as migration routes for a number of animal species, including the Karner blue butterfly. Indirect impacts due to noise may cause disruption to marsh nesting and feeding birds within the preserve. Because the site is adjacent to active rail lines, these impacts are expected to be very slight.

M.3.1.1.17 Ivanhoe Dune and Swale TNC Nature Preserve (West)

The Ivanhoe Dune and Swale TNC Nature Preserve (West) is located adjacent to EJ&E Segment 2. No construction is planned adjacent to this preserve, but traffic on the segment is proposed to increase from an average of 9.8 to 29.8 trains per day.

Direct impacts to species are possible in the form of train-animal collisions. Direct adverse impacts due to maintenance of rail embankments may increase if these activities are ill-timed. Conversely, the same corridors between these preserves are migration routes for a number of animal species, including the Karner blue butterfly, and their continued presence is a potentially positive influence. Increased noise may cause disruption to marsh nesting and feeding birds within the preserves, but since the site is already adjacent to active rail lines, these impacts are expected to be very slight.

M.3.2 Natural Areas with No Potential for Impacts

Table M.3.2-1 on the following page shows natural areas that have no impacts from the Proposed Action.

Table M.3.2-1. Natural Areas with No Impacts from Proposed Action	
Natural Areas	Justification for Decision (Existing Community Types)
Lake County, Illinois	
Mundelein Park and Recreation District	Recreational open space park
Cook County, Illinois (West Subdivision)	
Crabtree Nature Center Forest Preserve; INAI 0266	Forested area across major roadway (Route 59) from EJ&E rail line; (marsh/forest)
DuPage County, Illinois	
Dunham Forest Preserve	EJ&E rail line runs adjacent to cornfield; (agricultural field)
Illinois Natural History Survey (INHS) Railroad Prairie (Site 20)	No construction; appears as though most of area has been developed; (prairie remnant)
Blackwell Forest Preserve	EJ&E rail line adjacent to natural area fragmented by residential areas; (marsh/grassland)
Big Woods Forest Preserve	Site across industrial/commercial area from EJ&E rail line; (marsh/grassland)
Country Lakes Forest Preserve	EJ&E rail line across from highly fragmented area (industrial/residential divide); (marsh)
Night Heron Marsh Forest Preserve	Rookery is surrounded by Eola Road and Liberty Street and existing rail yards; (marsh/rookery)
Will County, Illinois	
Vermont Cemetery Prairie Nature Preserve; INAI 10803	Fragmented, rail line may protect from development; (high quality dry-mesic prairie)
INHS Railroad Prairie (Site 27)	About 0.25 mile from EJ&E rail line; poor-quality prairie remnant, appears unmaintained; (remnant prairie)
INHS Railroad Prairie (Site 28)	East of EJ&E rail line; appears to be largely disturbed (new housing, tilled field, overgrown woods; (remnant prairie)
INHS Railroad Prairie (Site 29)	Prairie appears to be poor quality, mostly farmed and maintained under power corridor; (remnant prairie)
Alessio Prairie Forest Preserve	Commercial, roadway and residential areas between rail line and preserve; (grassland)
Kraske Forest Preserve	Commercial, roadway and residential areas between rail line and preserve; (grassland)
Walnut Hollow Forest Preserve	Located across rail yard; (forest)
Sauk Trail Reservoir Forest Preserve	Fragmented corridor through residential development to preserve (xx)
Old Plank Road Trail2	No quality habitat between trail and rail line; (grassland)
Cook County, Illinois (East Subdivision)	
Butterfield Creek Headwaters Land and Water Reserve, INAI 0540, Old Plank Road Prairie, and Old Plank Road Nature Preserve	Nature preserve areas 0.5 mile from proposed change in traffic; (prairie)
Sauk Village Railroad Prairie; INAI Site 05423	Fragmented; rail line may protect from development; (dry-mesic prairie)
Plum Creek Forest Preserve	Adjacent to EJ&E rail line (south of tracks); former gravel quarry adjacent to residential development, fragmented from the core of preserve by East Sauk Trail Road (open water, wetland, forest, Shrubland)

Table M.3.2-1. Natural Areas with No Impacts from Proposed Action

Natural Areas	Justification for Decision (Existing Community Types)
Lake County, Indiana	
High-quality natural community (unnamed site A)	Adjacent to EJ&E rail line (north of tracks); adversely affected by recent road building; small and isolated prairie strip; (wet-mesic sand prairie)
High-quality natural community (unnamed site B)	Adjacent to EJ&E (north of tracks); adversely affected by recent road building; small and isolated prairie strip; (dry-mesic sand prairie)
High-quality natural community (St. John prairie site)	Nearly 0.5 mile from EJ&E rail line; (wet-mesic sand prairie)
Hoosier Prairie Nature Preserve	No impacts expected to grassland and savanna wildlife; industry and petroleum storage area between EJ&E rail line and Hoosier Prairie; (wet sand prairie, wet-mesic sand prairie, mesic sand prairie, shrub swamp, dry sand savanna, dry sand prairie, marsh and dry-mesic sand prairie)
Oak Ridge Prairie County Park	Park boundary is nearly 0.5 mile from EJ&E rail line beyond private forest tract; (wet-mesic sand prairie)
Wadsworth Park	Small community park with a few remnant trees and unmowed natural area
Seberger Park	Park is adjacent to EJ&E rail line but appears to have significant on-site disturbance; (remnant dune and swale)
Black Oak Remnant Dune and Swale	Eastern edge of site is opposite an asphalt reprocessing yard; impacts from proposed project unlikely; (dry-mesic sand savanna/marsh/shrub swamp)
Gibson Woods Nature Preserve	Natural dune and swale habitat; habitat and release site for the Karner blue butterfly, adjacent to EJ&E segment 2; adverse affects possible to mobile species, though plant community impacts are not expected; (mesic sand savanna and dry-mesic sand savanna)
Clarke and Pine Nature Preserve; High-quality natural community	Site is directly adjacent to EJ&E Segment 22, a rail line with no proposed increase in use under the Proposed Action; EJ&E Segment 1 with proposed increase in traffic is approximately 0.2 mile from site boundary; site has been cut off from adjacent natural areas by existing land uses; (marsh/dry-mesic sand prairie/dry sand prairie/dry sand savanna/wet-mesic sand prairie)
Pine Station Nature Preserve; High-quality natural community	Site is adjacent to EJ&E Segment 3 that has no proposed increase in use under the Proposed Action; EJ&E rail line with proposed increase in traffic is approximately 0.2 miles from site boundary; site cut off from adjacent natural areas by existing land uses; (dry-mesic sand prairie)
Jackson Park	Nearly 0.5 mile from EJ&E across major roadways and residential area
Indiana Dunes National Lakeshore	Area is separated from the EJ&E Dixie Lead by two rail lines, and is fragmented by additional rail and road crossings.