

4.8 Fish and Wildlife Habitat

4.8.1 Existing Conditions

The Meadowlands Railroad and Roadway Improvement Project spans two main areas; that of the Meadowlands Sports Complex and the undeveloped, yet disturbed, northern portions of Walden Marsh. The area within the perimeter of the Sports Complex is entirely developed consisting mostly of asphalt parking areas and building structures. New Jersey Landscape Project Version 2 habitat mapping does not depict any portion of the Meadowlands Sports Complex as “suitable wildlife habitat”. While not at all pristine, Walden Marsh, located to the west of the Sports Complex does present abundant vegetative wetland and upland areas that provide suitable cover and foraging habitat for wildlife. Much of this area is depicted as “suitable wildlife habitat” in the Landscape Project habitat mapping.

Previous environmental studies conducted within the vicinity of the Meadowlands Sports Complex have revealed the presence of wildlife species residing within similar *Phragmites* dominated vegetative communities. Evidence of muskrats (*Ondatra zibethicus*), meadow voles (*Microtus pennsylvanicus*) and eastern cottontail rabbits (*Sylvilagus floridanus*) was also documented in 2003 (NJSEA, 2004). During these studies various bird species were also observed including killdeer (*Charadrius vociferus*), herring gulls (*Larus argentatus*) and northern harriers (*Circus cyaneus*, State endangered).

During the summer of 2004 wetland investigations were performed for the Meadowlands Rail Project and observations of wildlife were made. Muskrat, herring gulls, killdeer, Great blue heron (*Ardea herodias*, special concern) and a Garter snake (*Thamnophis spp.*) were observed within the vicinity of the project.

Data inquiries to the NJDEP Natural Heritage Program (NHP) were submitted to obtain information pertaining to threatened or endangered plant or animal species inhabiting areas within the vicinity of the Project. The response from the NJDEP NHP noted that New Jersey Landscape Project habitat mapping indicates that colonial water-bird foraging habitat and Yellow-crowned night-heron (*Nycticorax violaceus*, State threatened) foraging habitat exist within one-quarter mile of the Project. The response also indicates that a northern harrier was spotted within one-quarter mile of the Project. Review of the New Jersey Landscape Project Version 2 habitat mapping, confirms that the Project would not impact the areas where these species have been noted.

4.8.1.1 Avian Species

The Hackensack Meadowlands is well known for its abundance of urban birding grounds, however a review of previous environmental studies suggests that the vicinity of the Sports

Complex and neighboring areas are not primary stopover points for migratory birds (NJSEA, 2004).

According to most recent environmental studies, a total of 32 bird species were observed on and around the Continental Airlines Arena Site during the field investigations performed in 2003 by Langan Engineering & Environmental Services (NJSEA, 2004). Herring gull and mourning dove (*Zenaidura macroura*) were the species most commonly observed during the 2003 wildlife habitat study. Barn swallow (*Hirundo rustica*), song sparrow (*Melospiza melodia*), European starling (*Sturnus vulgaris*), gray catbird (*Dumetella carolinensis*) and redwing blackbird (*Agelaius phoeniceus*) were also observed at several stations. Black-crowned night heron (*Nycticorax nycticorax*, State threatened) and Northern harrier were the only state or federally-listed threatened or endangered avian species observed within the area during previous studies.

The snowy egret (*Egretta thula*), the black duck (*Anas rubripes*) and the gray catbird (*Dumetella carolinensis*) are three species listed by the NJDEP as “Species of Special Concern” that were also documented in and around the vicinity of the Sports Complex in the 2003 wildlife habitat study. Great blue heron, also a “Species of Special Concern,” was observed during the Summer 2004 wetland investigation performed for the Project.

Although no field observations were conducted during the winter months, species such as the great black-backed gull (*Larus marinus*), ring-billed gull (*Larus delawarensis*), white crowned sparrow (*Zonotrichia leucophrys*), dark-eyed junco (*Junco hyemalis*), and purple finch (*Carpodacus purpureus*) are known to inhabit the Project area.

4.8.1.2 Reptiles and Amphibians

The waters of the HMD exhibit oligohaline to mesohaline conditions with salinity levels ranging between one and 10 parts per thousand (ppt) (NJSEA, 2004). Salinity levels greater than five ppt are difficult for most amphibians native to the area to tolerate. Few amphibians inhabit the Meadowlands. The green frog (*Rana clamitans*) and Pickerel frog (*Rana palustris*) are among these species (Kiviat, 2002). Reptiles however are more tolerant of elevated salinity levels. During the 2004 wetland investigations, one Garter snake was observed in the upland/wetland transitional area of Walden Marsh. Though no other reptile species were reported during the 2004 wetland investigation or recent environmental studies of the Meadowlands Sports Complex, it is anticipated that certain reptiles such as Snapping turtle (*Chelydra serpentina*), Painted turtle (*Chrysemys picta picta*), Black rat snake (*Elaphe obsoleta obsoleta*) and Northern brown snake (*Storeria dekayi dekayi*) may occur in the undeveloped wetland and upland portions in and around Walden Marsh (NJSEA, 2004).

4.8.1.3 Mammals

Given that the undeveloped portions of the site are surrounded by roadways and other developed lands, the presence of mammal species on the site is limited. The only mammals observed during the 2003 wildlife habitat study included grey squirrel (*Sciurus carolinensis*), groundhog (*Marmota*

monax), red fox (*Vulpes vulpes*) and eastern cottontail (*Sylvilagus floridanus*) (NJSEA 2004). Dead carcasses of Norway rat (*Rattus norvegicus*) and muskrat were also observed during the wetland delineation performed in June 2003 (NJSEA, 2004). The muskrat, grey squirrel, groundhog and eastern cottontail rabbit were all observed during the 2004 field investigations as well. These species are all considered common suburban mammals. The muskrat is common in freshwater and brackish marshes.

4.8.1.4 Fishes

Berry's Creek is known for its mercury-contaminated sediments though it has surprisingly revealed the greatest diversity of fish compared with other waterways within the HMD (NJMC Staff, personal communication). According to unpublished results of recent fish surveys by the New Jersey Meadowlands Commission, 14 different species of fish were hauled from the waters of Berry's Creek. The most common of these species of fish caught was White perch (*Morone americana*), followed by Blueback herring (*Alosa aestivalis*) and Alewife (*Alosa pseudoharengus*).

The NJDEP Division of Fish and Wildlife imposes timing restriction on construction activities within waterways supporting Alewife and Blueback herring between the dates of April 1st and June 30th of any given year. These restrictions would apply to the construction of the rail alignment viaduct through the Walden Marsh area and over Berry's Creek.

4.8.2 No-Action Alternative

It is anticipated that fish and wildlife conditions under the No-Action Alternative will be similar to existing conditions.

4.8.3 Preferred Alternative Impacts

The Meadowlands Railroad and Roadway Improvement Project would directly impact nearly two acres of undeveloped area considered to be suitable for wildlife habitat. No long-term adverse impacts are anticipated as a result of the Project however. The construction of the Bergen County Line, three major highways (i.e. NJ Route 3, NJ Route 120 and the NJ Turnpike), later followed by the Meadowlands Sports Complex have effectively isolated and fragmented the limited wildlife habitat remaining in this area, including Walden Marsh. The proposed alignment has been carefully planned so as to minimize further impact and fragmentation of Walden Marsh and the wildlife habitat that remains.

4.8.3.1 Avian Species

It is anticipated that the proposed Meadowlands Rail Project would directly impact bird foraging habitat at the northern tip of Walden Marsh. The area of anticipated impacts includes wetlands, upland transitional areas and open water habitat. Much of this area was previously disturbed by filling, ditching and contamination. The habitat in this area is of low ecological value. Vegetated areas consist mostly of monotypic stands of *Phragmites* marsh, typical of the HMD. The impacts to migratory birds resulting from the loss of tidal wetland habitat within Walden Marsh would be minimal, given the abundance of similar habitat within the HMD.

4.8.3.2 Reptiles and Amphibians

Common reptiles to be expected in the Project area are Snapping turtle, Painted turtle, Eastern garter snake and Northern brown snake. No evidence of amphibians exists within the vicinity of the project. Impacts to these species, if present during construction, would be direct and possibly permanent however given the relative mobility of these species impacts are not anticipated. Constructing the rail alignment on viaduct through the Walden Marsh would not prevent the passage of these species.

4.8.3.3 Mammals

The construction of the Meadowlands Railroad and Roadway Improvement Project is expected to have minimal impact on local mammal populations. Construction impacts, specifically from filling and clearing activities, would potentially result in the elimination of habitat and/or relocation of some common mammalian species including muskrat, groundhog, Norway rat and eastern cottontail. The destruction of *Phragmites* dominated emergent wetlands is not anticipated to have a regional effect because of the large undesirable expanse of common reed wetlands throughout the HMD.

4.8.3.4 Fishes

Long-term impacts to fishes within the waters of Berry's Creek are anticipated to be minimal. While the placement of piles within the channel would be permanent fixtures they will not significantly disrupt the overall habitat of Berry's Creek. During construction, short-term impacts could include slight increases in turbidity, disruptions of creek bed sediments and the scattering of fish from the Project site. Fish species are quite mobile and the project is not expected to significantly impact individual fishes.

4.8.4 Mitigation

The wetland mitigation plan (see Section 4.2.3) currently being developed for the proposed Project will compensate for wetland and open water impacts and associated wildlife habitats for

the displacement of wildlife habitat. The end result of the wetland mitigation effort would create and/or restore an area greater than that of which would be impacted as a result of the Project. Not only would the mitigation area be greater in size than the loss of wildlife habitat, it would also be significantly enhanced by the presence of more desirable native plants species as compared to that of the monotypic stands of Common reed that would be lost. The Project would also observe timing restrictions for construction activities within Berry's Creek to prevent disturbances to Alewife and Blue-back herring between the dates of April 1st and June 30th of any given year.