

4.7 Vegetation

4.7.1 Existing Conditions

An assessment of the vegetation present within the vicinity of the proposed Meadowlands Railroad and Roadway Improvement Project was completed as part of the wetlands identification and delineation study and the wildlife habitat investigation conducted in 2004. The Meadowlands Sports Complex and much of its adjacent areas are comprised of developed, impervious surfaces including buildings, roadways and parking areas. Surrounding these developed areas is an abundance of wetlands. The most densely vegetated areas within the Project's vicinity are those found in and along the wetlands of Walden Marsh.

For the purpose of this report, vegetative cover has been separated into two distinct categories; maintained and natural. Of the naturally vegetated areas within the path of the proposed alignment, almost all of the area has been delineated as wetland with the exception of a few upland and transitional areas along the wetland boundaries. Maintained vegetative areas consist of various trees and shrubs planted in lawn areas along roadways and in various vegetative islands in parking areas.

Table 4.7-1 provides a general list of plant species observed during the 2004 field investigations and previous environmental studies performed in the vicinity of the Meadowlands Sports Complex.

4.7.1.1 Natural Vegetation

The overall majority of natural vegetation within the path of the rail alignment falls within the wetland areas of Walden Marsh. These wetlands and adjacent upland areas consist almost entirely of monotypic stands of common reed (*Phragmites australis*) with isolated shrubs and trees such as Tree-of-Heaven (*Ailanthus altissima*) and Princess tree (*Paulownia tomentosa*).

Upland and transitional zones along the border of the wetland areas are characterized by dense thickets of Asiatic/Oriental bittersweet (*Celastrus orbiculatus*), Tartarian honeysuckle (*Lonicera tatarica*), mugwort (*Artemisia vulgaris*), common reed, Tree-of-Heaven and Princess tree. All of the above mentioned species are categorized as invasive plant species according to the Natural Resources Conservation Service's (NRCS) Plants Database. Plant communities consisting mostly of non-indigenous invasive species is indicative of low value wildlife habitat.

As part of this investigation a request for information pertaining to rare or endangered plant communities was submitted to the NJDEP New Jersey Natural Heritage Program (NJNHP). The response from the NJNHP dated August 30, 2004 did not indicate the presence of any rare or endangered plant communities within the immediate vicinity of the Project (Appendix A).

Table 4.7-1
Vegetative Species Observed in the Vicinity of the Project

<i>Scientific Name</i>	Common Name	<i>Scientific Name</i>	Common Name
<i>Acer saccharinum</i>	silver maple	<i>Lythrum salicaria</i>	Purple loosestrife
<i>Ailanthus altissima</i>	Tree-of-Heaven	<i>Morus rubra</i>	Red mulberry
<i>Alliaria petiolata</i>	garlic mustard	<i>Oenothera biennis</i>	common evening primrose
<i>Allium vineale</i>	field garlic	<i>Onoclea sensibilis</i>	sensitive fern
<i>Amaranthus camibinus</i>	Marsh waterhemp	<i>Paulownia tomentosa</i>	Princess tree
<i>Ambrosia artemisifolia</i>	common ragweed	<i>Phragmites australis</i>	common reed
<i>Apocynum androsaemifolium</i>	spreading dogbane	<i>Phytolacca americana</i>	common pokeweed
<i>Arctium minus</i>	Burdock	<i>Pinus rigida</i>	pitch pine
<i>Artemisia vulgaris</i>	mugwort	<i>Pinus strobes</i>	northern white pine
<i>Asclepias syriaca</i>	common milkweed	<i>Plantago major</i>	common plantain
<i>Baccharis halimifolia</i>	groundsel tree	<i>Pluchea purpurascens</i>	salt marsh fleabane
<i>Carex stricta</i>	Tussock sedge	<i>Polygonum sp.</i>	smartweed
<i>Carya glabra</i>	Pignut hickory	<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Catalpa speciosa</i>	Northern catalpa	<i>Populus deltoides</i>	Eastern cottonwood
<i>Celastrus orbiculatus</i>	Asiatic/Oriental bittersweet	<i>Prunus serotina</i>	black cherry
<i>Cichorium intybus</i>	Chicory	<i>Quercus alba</i>	white oak
<i>Cirsium vulgare</i>	bull thistle	<i>Robinia pseudoacacia</i>	black locust
<i>Chenopodium album</i>	Lambs quarter	<i>Rosa multiflora</i>	multiflora rose
<i>Coronilla varia</i>	Crown vetch	<i>Rumex sp.</i>	dock sp.
<i>Cyperus strigosus</i>	Nut sedge	<i>Salix babylonica</i>	weeping willow
<i>Daucus carota</i>	Queen Anne's lace	<i>Scirpus americanus</i>	common three-square
<i>Elaeagnus augustifolia</i>	Russian olive	<i>Solanum carolinense</i>	horse nettle
<i>Eleocharis sp.</i>	spike rush	<i>Solidago rugosa</i>	Rough-stemmed goldenrod
<i>Erigeron annuus</i>	daisy fleabane	<i>Spartina patens</i>	saltmeadow cordgrass
<i>Fragaria virginiana</i>	wild strawberry	<i>Toxicodendron radicans</i>	Poison ivy
<i>Impatiens capensis</i>	jewelweed	<i>Tsuga canadensis</i>	Eastern hemlock
<i>Iva frutescens</i>	marsh elder	<i>Ulmus americana</i>	American elm
<i>Juncus effuseu</i>	soft rush	<i>Verbascum thapsus</i>	common mullien
<i>Juncus gerardii</i>	Black grass	<i>Vitis labrusca</i>	fox grape
<i>Lonicera tatarica</i>	Tartarian honeysuckle		

Source: Field Investigation 2004, NJSEA 2004, Langan 2003

4.7.1.2 Maintained Vegetation

Areas within the Meadowlands Sports Complex consist mostly of developed land (i.e. impervious paved areas, buildings and landscaped areas). Vegetation exists only in the many small islands and linear borders of parking lots consisting of landscaped lawn, trees and shrubs with the exception of the infield of the horse racetrack. The horse racetrack would not be affected by the Project.

Plant species observed at some of these vegetated locations are Eastern hemlock (*Tsuga canadensis*), northern white pine (*Pinus strobes*) and Russian olive (*Elaeagnus augustifolia*) as well as various other landscape trees and shrubs observed along the maintained areas of the Sports Complex. Exceptions to the normal landscaped vegetation described above include Wetlands D, F and G (Section 4.2.1). The vegetation described in these manmade environments cannot be categorized into vegetative communities nor are they considered beneficial wildlife habitat.

4.7.2 No-Action Alternative

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

4.7.3 Preferred Alternative Impacts

Impacts to vegetation resulting from the proposed Project are anticipated to be minimal. No unique natural vegetative communities were identified within the overall Project area by the NJNHP therefore none would be impacted.

4.7.3.1 *Natural Vegetation*

Approximately 1.9 acres of naturally vegetated area consisting almost entirely of common reed would be permanently impacted by the proposed rail alignment while an additional 1.4 acres of clearing would result from temporary access roads required for construction. Roadway improvements would be constructed within the developed areas of the Meadowlands Sports Complex and would not impact any naturally vegetated areas.

4.7.3.2 *Maintained Vegetation*

Roadway improvements and relocating a parking area displaced by the proposed rail station would impact approximately 4.2 acres of maintained vegetated areas. These areas consist mostly of landscaped lawn, trees and shrubs. The majority of these impacts would occur to the east of Giants Stadium along the west side of NJ Route 120. These areas are not regulated under current environmental regulatory protections.

4.7.4 Mitigation

Impacts to naturally vegetated wetland areas, approximately 1.59 acres permanent and 1.11 acres temporary, would be compensated for through the Meadowlands Railroad and Roadway Improvement Project's wetland mitigation plan as outlined in Section 4.2.3. Naturally vegetated upland areas within the vicinity of the project are considered to be of low ecological value.

Because upland areas are not regulated, direct mitigation is not required; therefore, impacts to upland areas would not be mitigated.

The implementation of soil erosion and sediment control measures, discussed in Section 4.1.3 of this report, would ensure that impacts to downstream vegetation are minimized. Therefore, water quality impacts from runoff to downstream vegetation are anticipated to be negligible.