4.23 Avoidance of Adverse Environmental Impacts

Construction of the proposed Meadowlands Railroad and Roadway Improvement Project would occur following the thorough planning and design processes necessary to minimize or eliminate adverse environmental impacts. As described throughout Section 4 of this document, the location of the proposed rail alignment, rail station and roadway improvement alignments, as well as the construction activities associated with this proposed project, would avoid most potential adverse environmental impacts.

Despite measures to avoid or minimize impacts, certain adverse impacts are anticipated to occur and are considered to be unavoidable. Mitigation measures would be employed to reduce or eliminate both permanent and temporary adverse impacts. Most of these effects would result from construction activities and would be temporary in nature, ceasing with the completion of construction. Temporary increases in fugitive dust, erosion and air emissions would result from the utilization of construction equipment and construction vehicles. In addition, short-term impacts to wetland areas would occur during construction in order to build a temporary construction roadway. Implementation of best management practices would also be utilized to minimize these potential adverse impacts.

Unavoidable permanent adverse impacts would result from the necessity of the rail alignment to traverse a minimal amount of wetland areas. The landfilling of a minimal acreage of wetlands would also be required. The construction and utilization of a viaduct is proposed to minimize the acreage of wetlands that would be lost under the project. Additionally, the proposed project would necessitate the development of a Wetland Mitigation Plan that would require wetland preservation at a ratio to be determined.

The placement of the Project's rail alignment and station location was selected to avoid to the maximum extent possible many potential adverse environmental impacts.

4.23.1 Alignment

The location of the alignment generally consists of two separate site areas: upland or pre-disturbed areas and Berry's Creek and tidal wetland areas.

4.23.1.1 Upland/Pre-Disturbed Areas

The Project minimizes adverse environmental impacts because much of the alignment is located in upland and pre-disturbed areas. Much of the area traversed by the rail alignment is currently paved area of the Sports Complex. While maximizing the use of these disturbed areas, the location of the alignment still best preserves the internal traffic circulation, parking and operational requirements of the Sports Complex.

4.23.1.2 Berry's Creek and Tidal Wetland Areas

The Project crosses over Berry's Creek and affects tidal wetlands areas associated with Walden Marsh. This is inherent to the location of the existing NJ TRANSIT rail network relative to the Sport Complex site. Several alternatives were examined during the alternatives analysis phase of study, but all alternatives required the crossing of Berry's Creek and affected tidal wetland areas to reach the Sports Complex, therefore this impact could not be avoided. The evaluation of potential alternatives for the rail alignment indicated that there are no upland areas that could be utilized to avoid potential impacts to wetlands that do not have other adverse environmental impacts or other consequences, such as economic impacts to existing commercial or industrial operations. The only significant upland areas are existing parking lots or other operational areas associated with the Sports Complex. Existing transportation infrastructure, which limits rail alignments both from a horizontal and vertical perspective, also surrounds the site.

The design of the Meadowlands Rail Project seeks to minimize the footprint of the facility in order to minimize wetland impacts. This would be achieved through the use of specific construction techniques including the use of viaduct sections where applicable. A portion of the alignment would require construction access and construction activity in wetland areas. Use of temporary timber matting can provide a means of vehicle access through the soft soil conditions in the wetlands. Use of the timber matting during construction and its subsequent removal at the completion of construction would not permanently impact the wetland areas. Timber matting can provide a means of traveling adjacent to the construction area to permit transport of materials and equipment to the site. This method of construction access would also provide working platform areas in the vicinity of viaduct piers. It is anticipated that obtaining the wetland permits for the construction of the Meadowlands Rail Project would require that the construction contract include restoring wetland vegetation in the area of the temporary access roadway.

The pile/pier design would also provide the minor impact of shading, depending on the height of the structure and the amount of daylight that is available, rather than the filling of wetlands, which would be required for the construction of slope embankments and retaining walls. The use of concrete piles would also allow for the necessary ecological function of the wetlands such as tidal floodwater storage, sediment and water filtration and the exchange of nutrients.

4.23.2 Station

The location of the proposed station was determined by two specific constraints, the proximity to existing venues within the Meadowlands Complex (Giants Stadium, the Meadowlands Racetrack and the Continental Airlines Arena) and the potential future extension of the alignment to the NJ TRANSIT Bergen County Line. The connection to this line would be addressed as a separate project in the future; however, the station location is required to be sited so as to provide the proper rail alignment to the proposed station from both the Pascack Valley Line and the Bergen County Line. Located in a pre-disturbed uplands area, this station location minimizes adverse impacts.