

## 4.12 Utilities and Infrastructure

### 4.12.1 Existing Conditions

Developments surrounding the Meadowlands Sports Complex are supplied with existing regional utility and infrastructure service that provide stormwater management and sanitary sewerage, potable water, electric, gas and telephone services. This section of the EIS will provide information on these types of utilities and infrastructure that currently provide service to the Meadowlands Sports Complex and describe impacts and any mitigation measures associated with the proposed Project.

#### 4.12.1.1 Stormwater Management

The NJSEA's existing stormwater management Lagoon system provides unique water quantity and quality measures for the overall NJSEA Sports Complex. The system consists of four large detention basins, referred to as Lagoons 1 through 4 (Section 4-3, Figure 4.3-2). Adjacent to Berry's Creek are Lagoons 1 and 2 that serve as the final stormwater detention areas prior to discharging to the creek. On the west side of NJ Route 120, near its intersection with NJ Route 3, Lagoon 3 stores stormwater collected from the eastern portion of the parking area for Giants Stadium and from the majority of the parking area and roadways on the Continental Arena area of the Sports Complex. In the middle of the Meadowlands Racetrack is Lagoon 4, which stores stormwater runoff from the racetrack facilities. All of the Lagoons ultimately discharge into Berry's Creek at the southwest corner of the Meadowlands Sport Complex, just north of NJ Route 3.

Lagoons 2, 3 and 4 are interconnected throughout the Meadowlands Sport Complex with large equalizer piping that allows the basins to act together for storage capacity during stormwater events. Lagoons 2, 3 and 4 connect to Lagoon 1 by a pump station that is located between Lagoons 1 and 2. Lagoon 1 discharges its water to Berry's Creek. Based on information from the NJSEA, Lagoons 2, 3 and 4 are pumped down prior to storm events to provide additional storage capacity. The existing Lagoon system provides for peak flow attenuation and water quality control by prolonged detention and settlement in the existing ponded areas.

An existing New Jersey Pollution Discharge Elimination System (NJPDES) permit governs the existing lagoon system discharge (No. NJ0023345) and reportedly has a discharge limit of 40 mg/l maximum for Total Suspended Solids (TSS). The NJSEA is in the process of updating the current NJPDES permit. The discharge concentration limit for TSS will remain the same.

A small portion of the Meadowlands Sports Complex does not drain to the Lagoon System, but rather discharges directly to Berry's Creek. This portion of complex is located near Plaza A and the Ramps from Berry's Creek Road to Paterson Plank Road.

#### **4.12.1.2 Sanitary Sewer Service**

Sewerage service to the Meadowlands facility is provided by the Bergen County Utilities Authority Little Ferry wastewater treatment facility (*NJMC, 2003*). The plant provides secondary treatment of sanitary wastewater and discharges the treated effluent to the Hackensack River (*NJSEA, 2004*). An existing 15-inch sanitary sewer currently runs through the footprint of the proposed Meadowlands rail station.

#### **4.12.1.3 Potable Water Service**

The water service provider in the vicinity of the Meadowlands Sports Complex is United Water New Jersey, Inc. The existing potable water infrastructure within and adjacent to the Meadowlands facility includes a system of water mains. A 14-inch water main runs under the proposed location of the rail station and provides service to Giants Stadium. Additionally, there is both a 12-inch and a 24-inch water main located beneath the NJ Route 120 right-of-way.

#### **4.12.1.4 Natural Gas Service**

Public Service Electric and Gas (PSE&G) provides natural gas service to the Meadowlands Sports Complex. An eight-inch gas main is located beneath the NJ Route 120 right-of-way, which then ties into a 24-inch gas main located beneath Paterson Plank Road.

#### **4.12.1.5 Electric Service**

The company that supplies electricity in the vicinity of the Meadowlands Sports Complex is PSE&G. Electric lines in the vicinity include both overhead and underground lines. Underground electric lines are present within the Giants Stadium property and serve the stadium building and various parking lot features (e.g., toll booths/kiosks, overhead lights) that surround it.

#### **4.12.1.6 Telephone Service**

Verizon provides telephone service in the vicinity of the Meadowlands Sports Complex. Telephone lines in the vicinity of the site include both overhead and underground lines. Underground telephone lines serve Giants Stadium and the tollbooths and kiosks throughout the existing parking lot areas.

#### 4.12.2 No-Action Alternative

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

#### 4.12.3 Preferred Alternative Impacts

Preliminary findings indicate that the location of some of the existing utilities currently serving the Meadowlands Sports Complex would require relocation to accommodate the Meadowlands Railroad and Roadway Improvement Project. Preliminary investigations also show that the capacity of the existing utilities and infrastructure would not require modifications or improvements, as the increase in demand would be relatively small. The potential impacts to the existing and new utilities to be provided are described as follows.

##### 4.12.3.1 Stormwater Management

###### Water Quantity Control

The proposed project in the vicinity of the rail station would introduce approximately 3 acres of new pavement, mainly to create replacement parking areas within the existing ramp infield areas. The existing area within the ramp areas currently drains east across NJ Route 120. The NJDEP Land Use Regulation Program for quantity control does not regulate runoff that drains directly to Berry's Creek since this area is subject to tidal flooding. Therefore, peak rate runoff rate control is not required by the NJDEP.

The planned stormwater management plan for the proposed adjacent development results in an actual reduction in drainage area (approximately 5.5 acres) and associated peak flows to Lagoon 3. The Meadowlands Railroad and Roadway Improvement Project would re-direct a portion of the drainage area to Lagoon 3 to avoid increasing runoff to the proposed adjacent development, while maintaining the existing peak flows to the Lagoon system.

###### Water Quality Control

As was mentioned in Section 4.12.1.1, an existing NJPDES (No. NJ0023345) permit governs the lagoon system discharge and reportedly has a discharge concentration limit of 40 mg/l maximum for Total Suspended Solids (TSS). The new stormwater management rules, N.J.A.C. 7:8-5.5 state that "The requirement to reduce TSS does not apply to any stormwater runoff in a discharge regulated under a numeric effluent limitation for TSS imposed under the New Jersey Pollutant Discharge Elimination System (NJPDES) rules, N.J.A.C. 7:14A, or in a discharge specifically exempt under a NJPDES permit from this requirement." Therefore, specific additional water quality measures are not required for the areas draining to the existing Lagoon system.

Water quality measures will be provided for the proposed improvements near Plaza A and the Ramps from Berry's Creek Road to Paterson Plank Road that discharges directly to Berry's Creek and does not drain to the Lagoon system. The roadway work in this area introduces approximately 0.4 acres of new pavement area. The design will provide for 80 percent TSS removal for new pavement areas and 50 percent TSS removal for disturbed or re-developed existing paved areas. An above ground shallow basin together with a Vortech water quality chamber (a treatment train approach) is proposed to provide water quality control.

The majority of the proposed Meadowland Railroad and Roadway Improvement Project from the connection at the existing Pascack Valley Line to the west side of the Berry's Creek crossing would be located on low level viaduct. This area would drain directly or indirectly to Berry's Creek and would not go through a stormwater system.

#### **4.12.3.2 Sanitary Sewer Service**

As part of the proposed adjacent development which is in the No-Action Alternative, a new sanitary sewer line would be installed, which would consist of a 15-inch sanitary line to run parallel to the existing sewer alignment. The new line would extend to a point located northwest of Giants Stadium, where it would tie into an existing 36-inch sanitary sewer line that discharges to an existing pumping station located northwest of the Racetrack (*NJSEA, 2004*).

The Meadowlands Railroad and Roadway Improvement Project would tie into the proposed adjacent development sewerage line to provide service to the rail station. A service lateral would be constructed to tie into the new 15-inch sanitary sewer. The projected flows for the Meadowlands Rail Project were calculated based on N.J.A.C. 7:14A-23. Since rail facilities are not covered in the table, the code allows the projected flow to be based upon a facility of similar operation. The most similar operations were that shown with a measurement of square feet, which is the 'Stores and Shopping Centers' category and requires a flow factor of 0.1 gallons per square foot. The station and platform area would be approximately 60,000 square feet. Using the square footage of the Meadowlands rail station platforms and lobby area, the projected flow was calculated to be approximately 7,000 gallons per day. It is anticipated that the sanitary sewer system proposed for the proposed adjacent development would have sufficient capacity to accommodate the additional flow from the Meadowlands rail station, which would be minimal (approximately one percent) compared to the flow rates produced by the proposed adjacent development.

#### **4.12.3.3 Potable Water Service**

The Meadowlands Railroad and Roadway Improvement Project would tie into the existing water facilities to provide service to the rail station. The domestic water usage is estimated to be equal to the sanitary sewer flows. Therefore, the flow generated from the Meadowlands rail station would be minimal at approximately 7,000 gallons per day.

The existing 14-inch water main that serves Giants Stadium would have to be relocated to avoid any conflict with the proposed rail station. Once the main is relocated, a service lateral can be tied-in to provide service to the rail station. Any other water mains or services that cross the proposed track alignment would be protected or relocated.

#### **4.12.3.4**      *Natural Gas Service*

The Meadowlands Railroad and Roadway Improvement Project would tie into the existing eight-inch gas main to provide service to the rail station. A lateral would have to be constructed to tie-in to the existing eight-inch main running beneath NJ Route 120. Any gas mains or services that cross the proposed track alignment would have to be protected or relocated.

#### **4.12.3.5**      *Electric Service*

There are both overhead and underground facilities located within the vicinity of the Meadowlands Railroad and Roadway Improvement Project. The proposed adjacent development would relocate overhead lines along NJ Route 120 underground. Service to the proposed rail station would come from existing electric facilities on the property. Any electric duct banks or services that cross the proposed rail track alignment would also have to be protected or relocated.

#### **4.12.3.6**      *Telephone Service*

There are both overhead and underground facilities located within the vicinity of the Meadowlands Rail Project. Service to the proposed rail station would come from existing telephone facilities on the property. Any telephone duct banks or services that cross the proposed rail track alignment would have to be protected or relocated.

#### **4.12.4 Mitigation**

No significant adverse impacts on utilities or infrastructure would occur as a result of construction or operation of the proposed Meadowlands Railroad and Roadway Improvement Project. The expanded use of the existing utilities and infrastructure proposed would be minimal and capacity exists to accommodate the project. Since there are no significant impacts anticipated, no mitigation measures have been proposed.