





Gillette Stadium & Patriot Place

Massachusetts



NSU worked closely with the town of Foxborough, the New England Patriots, and partners to ensure that the facility exceeded the Town's requirements and was constructed within budget and on schedule. The municipality and the client cooperated in the construction of a water reuse system that resolved both problems. The system includes almost 1,000,000 gallons of tank volume to capture the wastewater flows generated by fans: a 250,000 gallons per day membrane bioreactor (MBR) treatment plant that generates water suitable for reuse; and a 500,000 gallon elevated storage tank for reclaimed water use.

Challenge

During the construction phase of the new stadium, it was discovered that the volume of water required during game day/concert usage exceeded the capabilities of the Town of Foxborough. Also, the municipal wastewater treatment facility in place would not be able to handle the excess wastewater flow. As the town and team went through the process it was clear they needed a partner to assist with managing the water reuse system, repair and maintenance, customer service, and capital planning.

○ POTABLE WATER CONSTRAINTS	
□ REGULATORY MANDATES	

The Solution

NSU designed, built, and currently operates the water reuse system for Gillette Stadium and Patriot Place; home of the New England Patriots Football Team. The goal was to create a sustainable and environmentally-friendly system to produce high-quality reuse water for the stadium's 68,000 fans during peak halftime flush periods without creating additional demands on the community's existing systems.

The implemented system returns high-quality treated wastewater both to the stadium and the adjacent Patriot Place. The recycled water is used for toilets, facilities cooling as well as other purposes. The system currently has the capacity to treat an average of 250,000 gallons of wastewater per day, with the potential for future expansion.



Toilet Flushing



Cooling Tower





Drip Irrigation

Spray Irrigation







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Highlights

- Combined Sewer Overflow Mitigation
- All buildings receive comprehensive water reuse program rates from NYCDEP
- · Membrane Bioreactors
- · Ultraviolet and Ozone Disinfection







Achievements

Working with an amazing team, NSU was able to fulfill all local, client, and regulatory mandates.

The stadium has been operational for two decades and not put a water strain on the local community.

The system has become a sustainable icon for the region as it has generated a 50% reduction in potable water usage and a 50% reduction in wastewater discharge.







