



# PEIRCE ISLAND WWTF UPGRADE PROJECT



## INTRODUCTION

Construction of the Peirce Island Wastewater Treatment Facility (WWTF) Upgrade Project is complete after four and half years of construction. The project included complete reconstruction of the facility with a new Headworks Building, Solids Building, Biological Aerated Filter Building, Electrical Building, Standby Generator, Gravity Thickener and Operations/Lab Building. Renovations were completed to the Grit Building and Grit Tanks.

The completed facility has significantly improved the quality of treated wastewater effluent discharged to the Piscataqua River.

## SITE PLAN



## VIRTUAL TOUR

Scan the QR code with your mobile device to view the virtual tour.



## PROJECT FACTS

- ✓ Largest Capital Improvement Project in the City's history
- ✓ Construction commenced in September 2016 & completed in October 2021
- ✓ Total Project Cost: \$92 million  
NH State Revolving Fund Loan: \$81.9 million
- ✓ Number of Public Meetings:  
Prior to construction: > 40  
During construction: > 50  
Weekly construction meetings: > 200
- ✓ Construction Progress Tours: 7
- ✓ Area of WWTF site: 3.7 acres
- ✓ New buildings or tanks constructed: 5
- ✓ Total # of construction trucks: 13,500 round trips
- ✓ Amount of rock removed: over 14,400 cubic yards
- ✓ Amount of concrete placed: over 13,500 cubic yards
- ✓ Amount of reinforcing steel installed: over 3,400,000 pounds
- ✓ Typical # of construction staff on-site daily: 70 - 80
- ✓ Amount of utility pipe installed: over 3 miles

## AWARDS

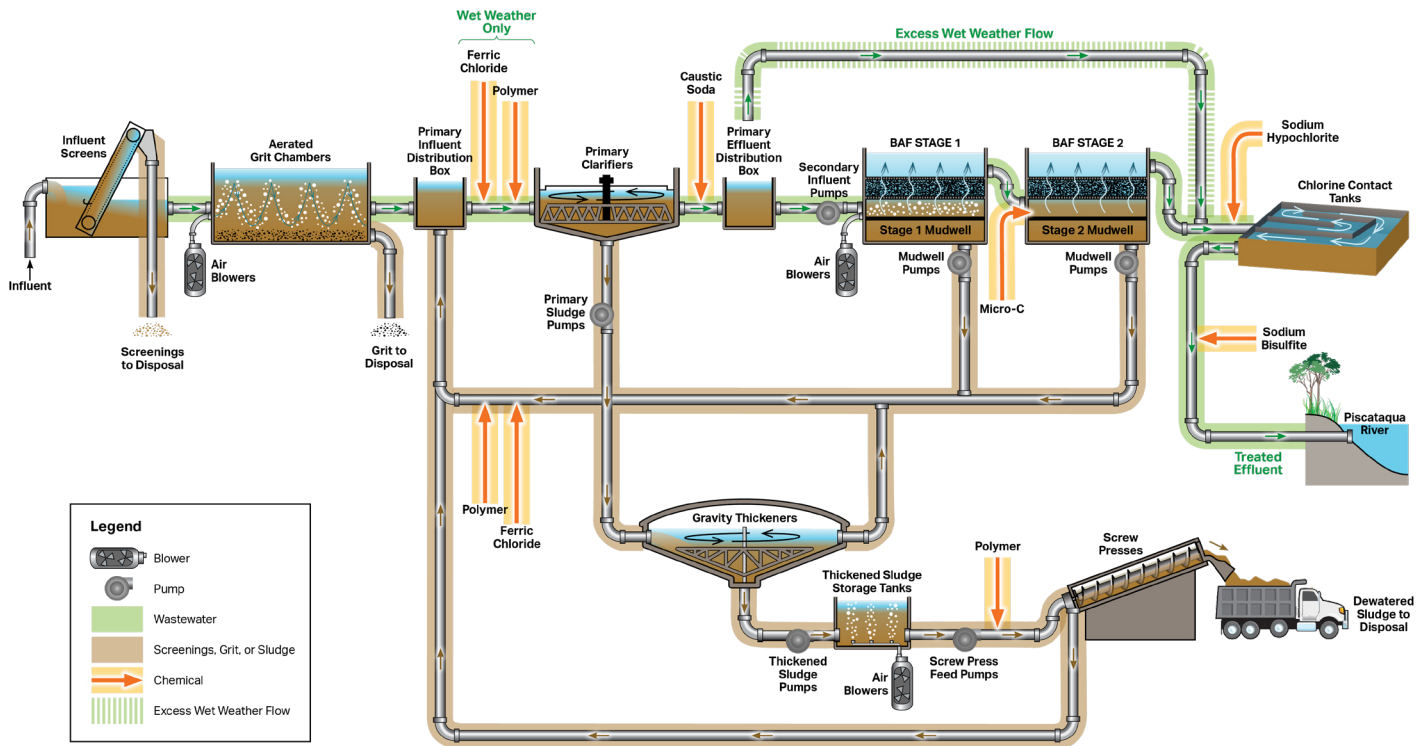


**Project Excellence Award**  
Water Environment Federation

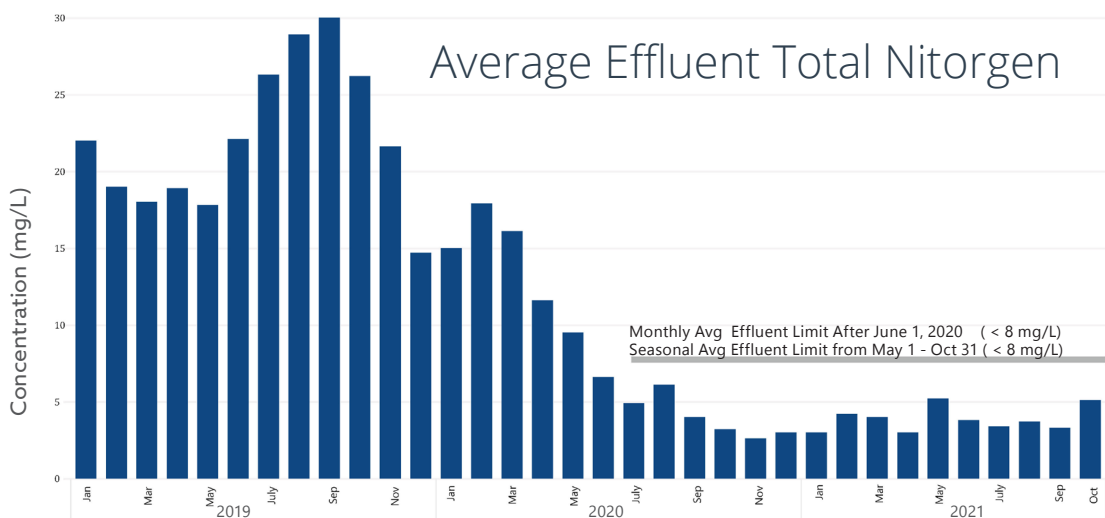
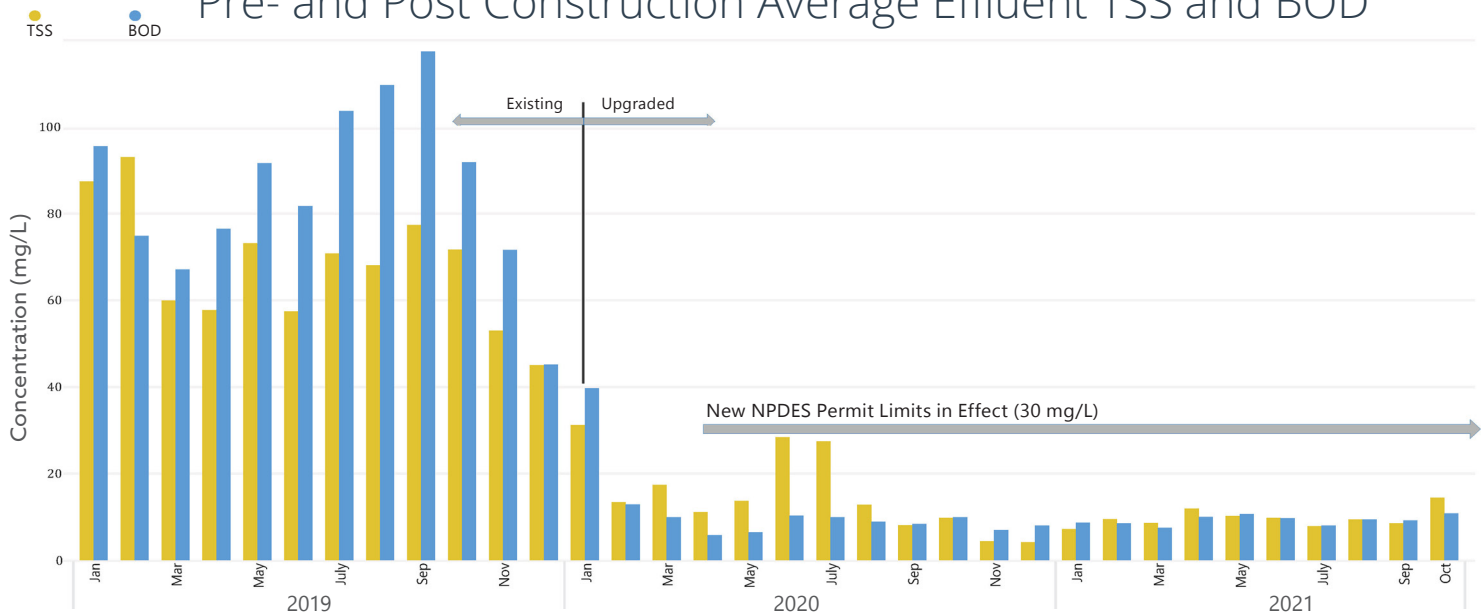


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# PROCESS FLOW DIAGRAM



## Pre- and Post Construction Average Effluent TSS and BOD



## Overall WWTF Load Reductions

Total Suspended Solids  
**88%**

Biochemical Oxygen Demand  
**90%**

Total Nitrogen  
**83%**