



# Peirce Island WWTreatment Plant Upgrade Update

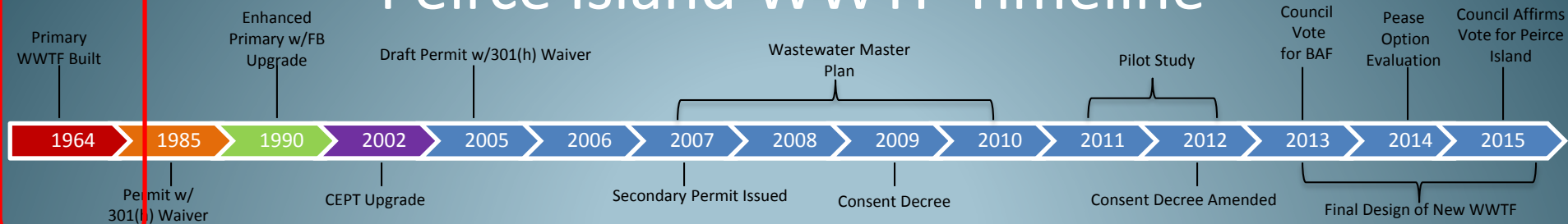
Portsmouth City Council Meeting  
February 1, 2016

# Introductions

- Terry Desmarais, City Engineer
  - History and Timeline
  - Progress Update (Design, Bidding, Construction)
  - Cost Estimate
  - Public Meetings and Outreach
  - Peirce Island Road Bridge Maintenance
- Suzanne Woodland, Deputy City Attorney
  - Consent Decree Negotiations



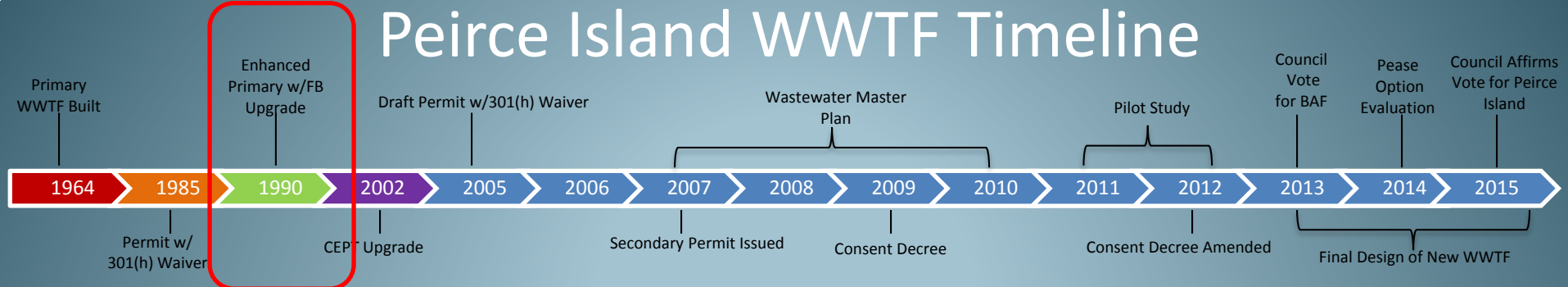
# Peirce Island WWTF Timeline



**1964 Original Wastewater Treatment Facility Built**



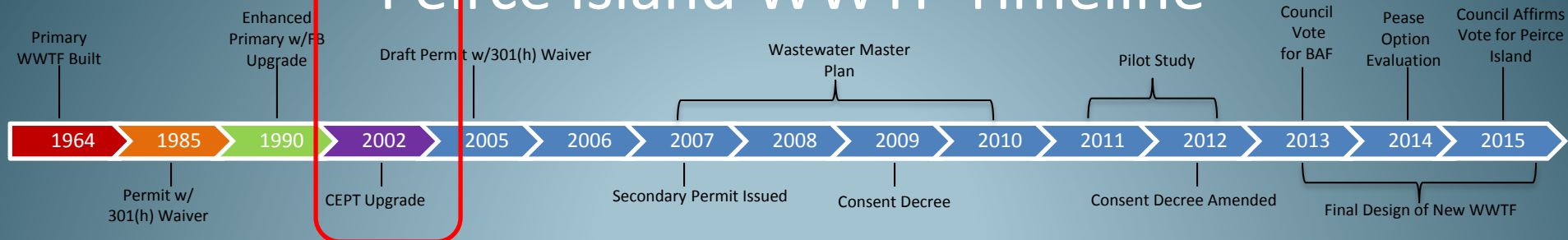
# Peirce Island WWTF Timeline



## 1990 – Filter Building Upgrade



# Peirce Island WWTF Timeline

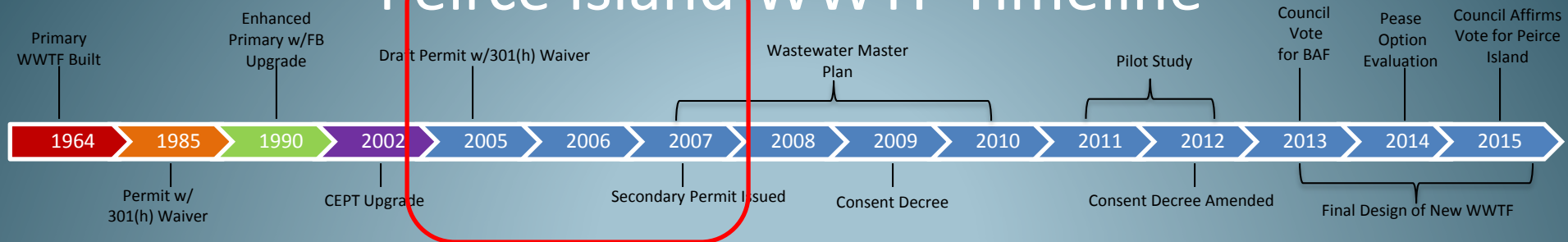


## 2002 – Enhanced Primary Treatment Upgrade

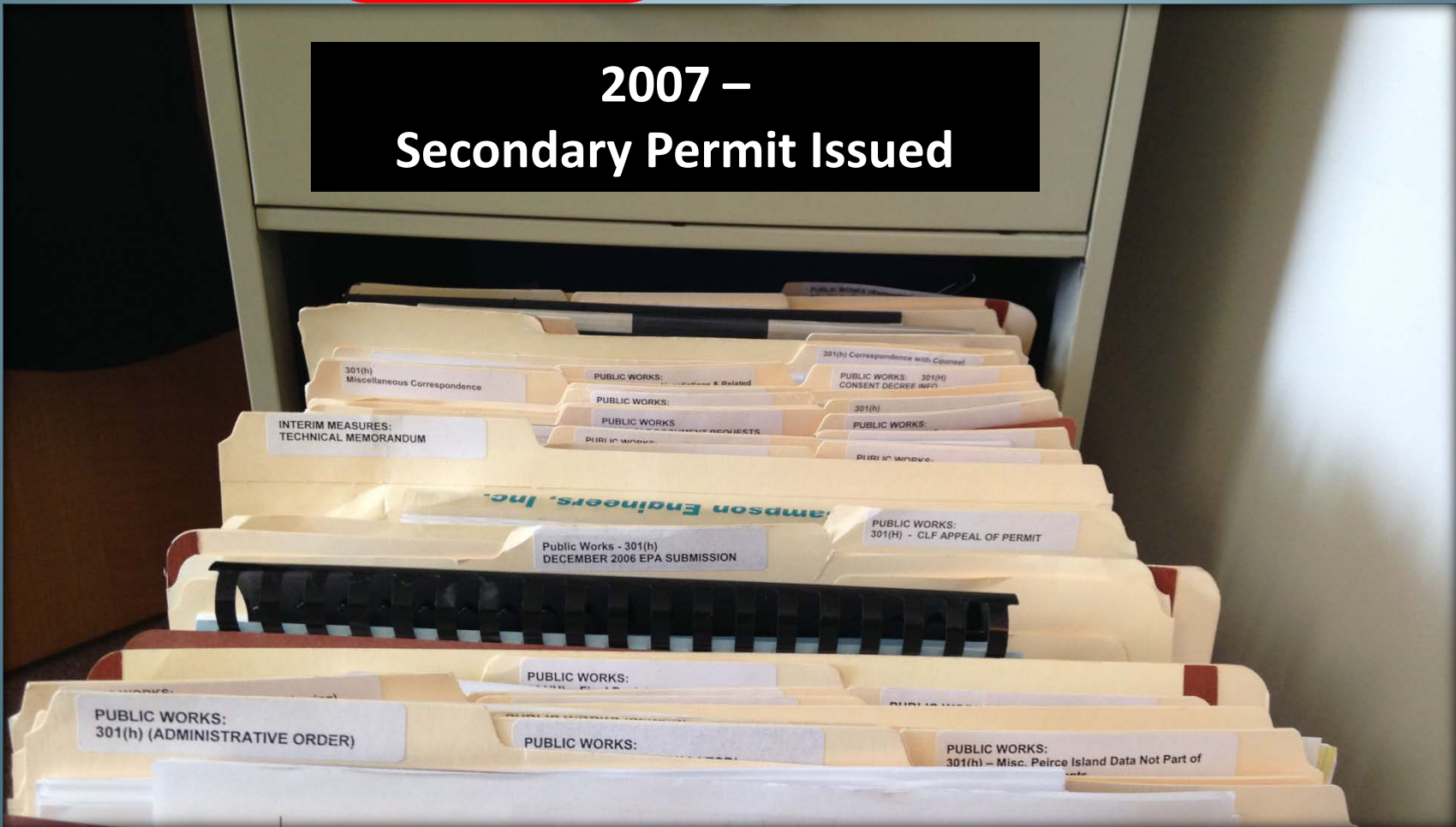
**Enhanced**

**Abandoned**

# Peirce Island WWTF Timeline



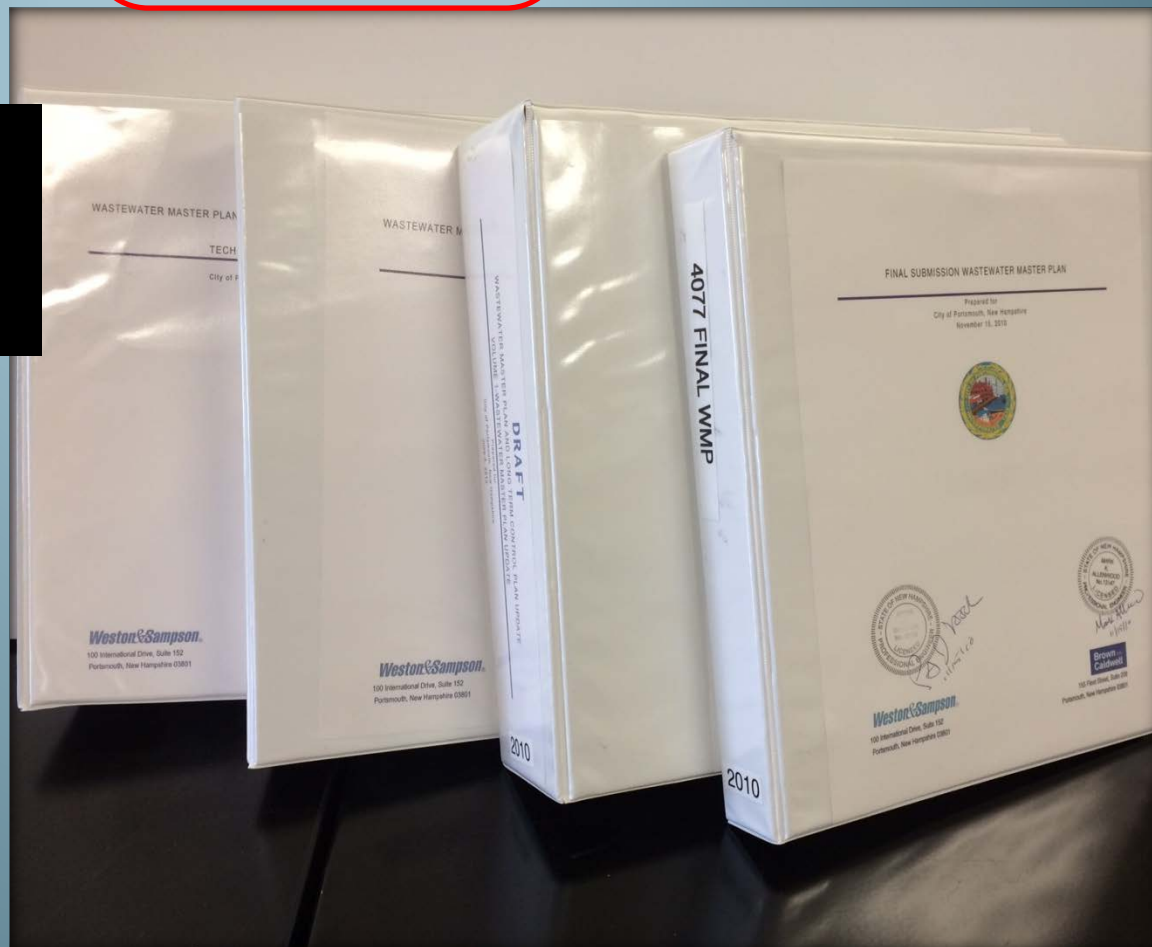
## 2007 – Secondary Permit Issued



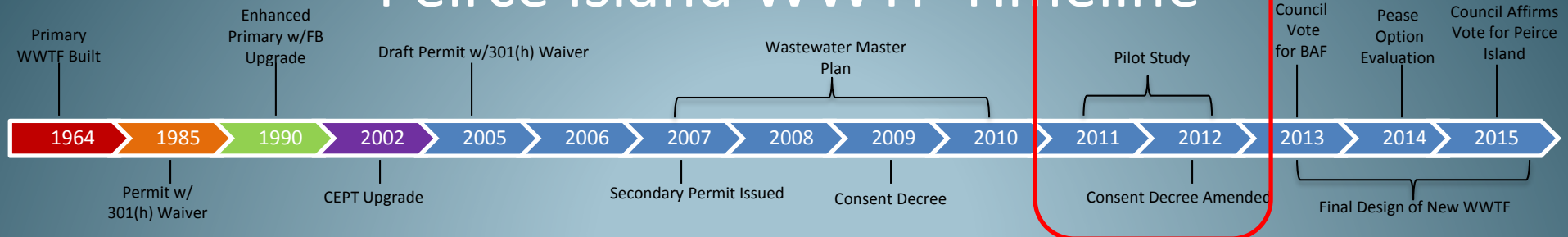
# Peirce Island WWTF Timeline



**2009 – Consent Decree**  
**2010 – Wastewater System Master Plan**



# Peirce Island WWTF Timeline

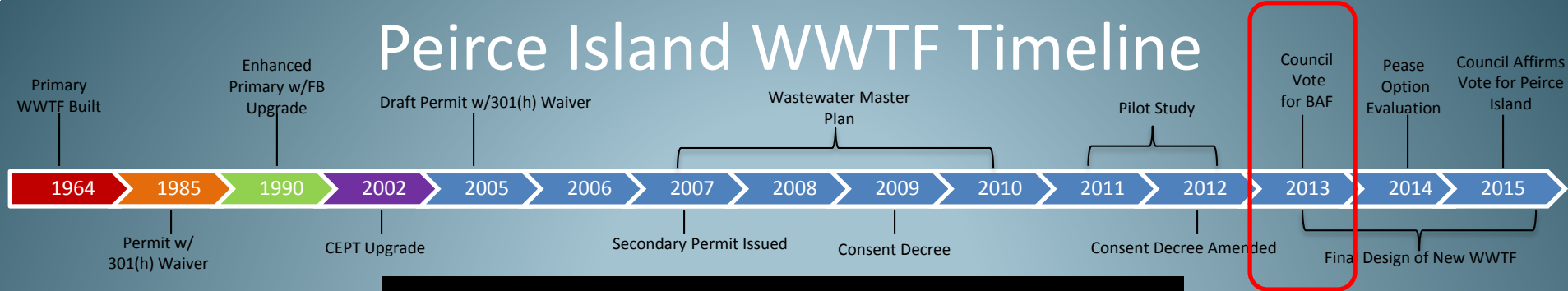


## 2011 and 2012 Treatment Technology Piloting and Consent Decree Amendment





# Peirce Island WWTF Timeline

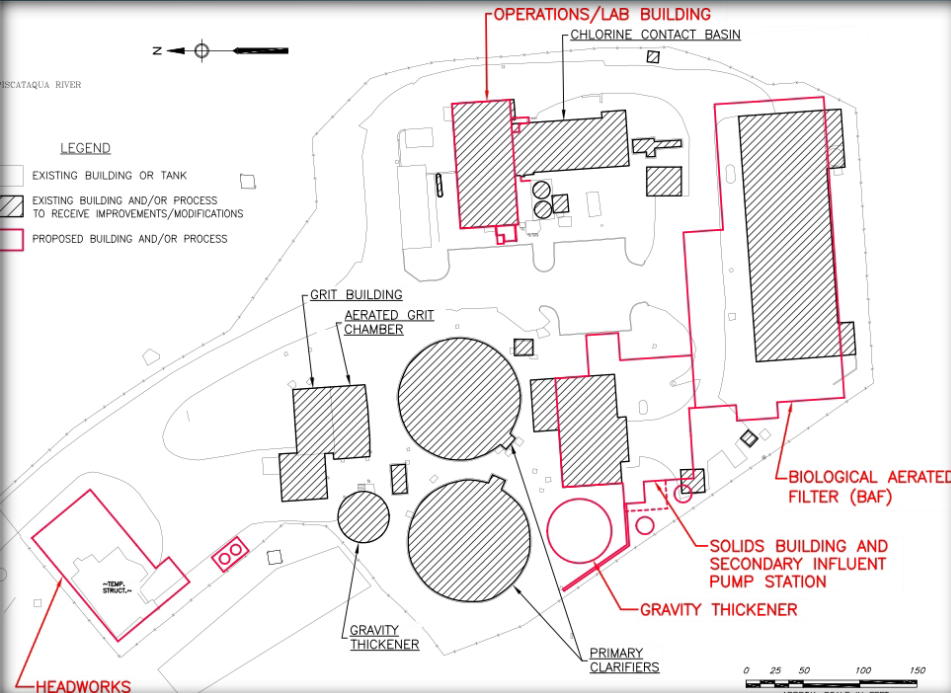
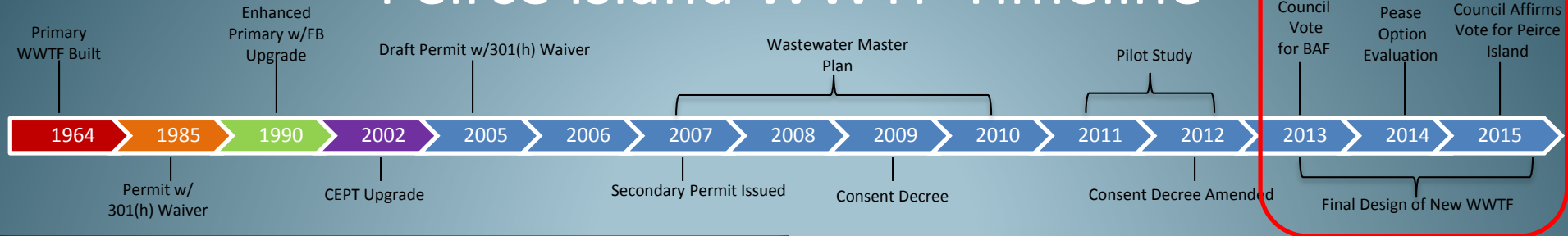


## 2013 City Council Votes 2013-2015 Final Design of WWTF

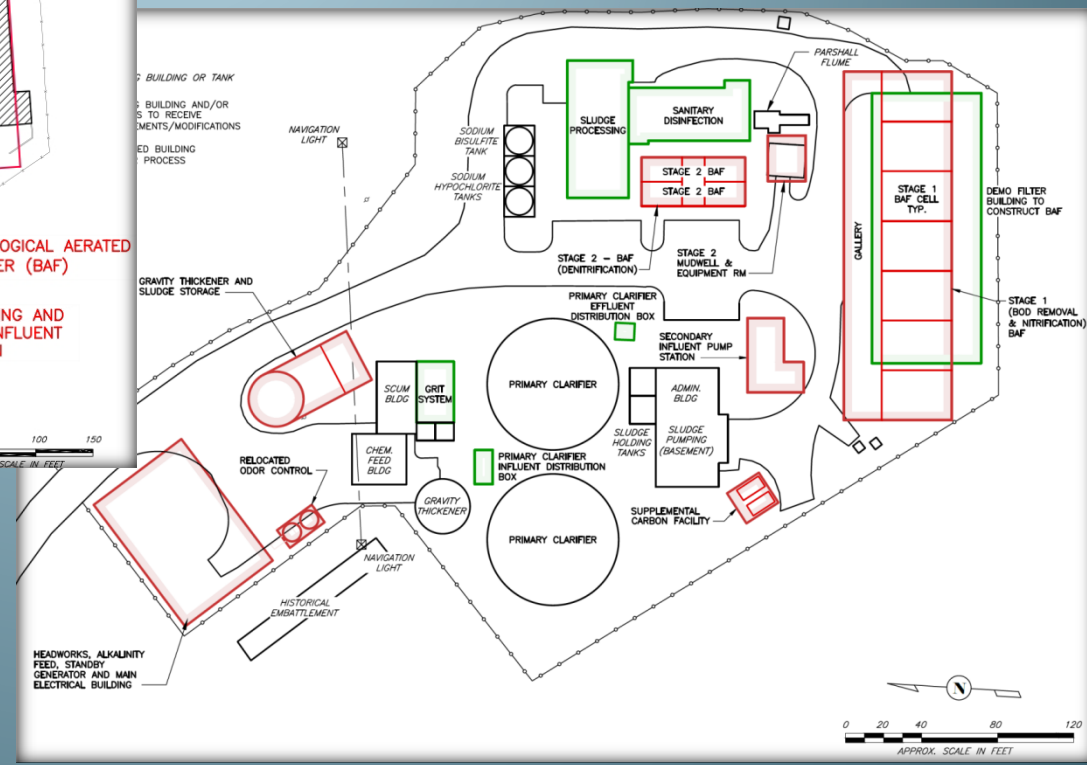
*“Move to comply with EPA mandate to meet secondary treatment at the Peirce Island Wastewater Treatment Plant with the ability to treat a total nitrogen limit 8 milligrams per liter on a seasonal rolling average basis, stay within the current fence line, and to support of the Biological Aerated Filter (BAF) technology.” City Council Vote April 8, 2013*



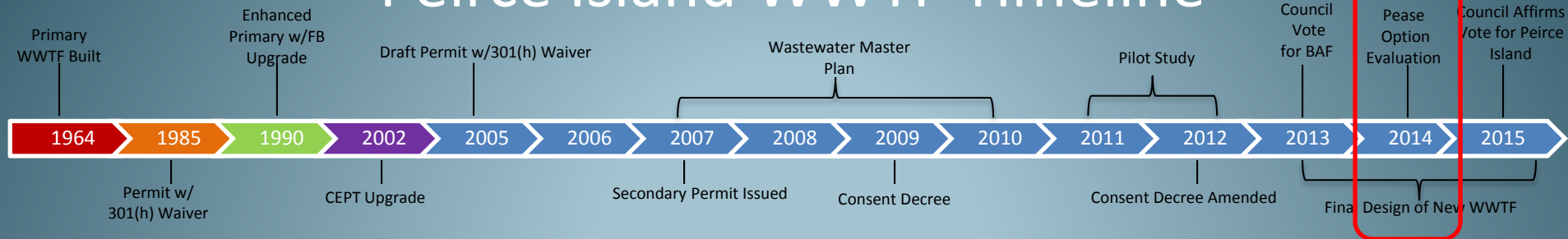
# Peirce Island WWTF Timeline



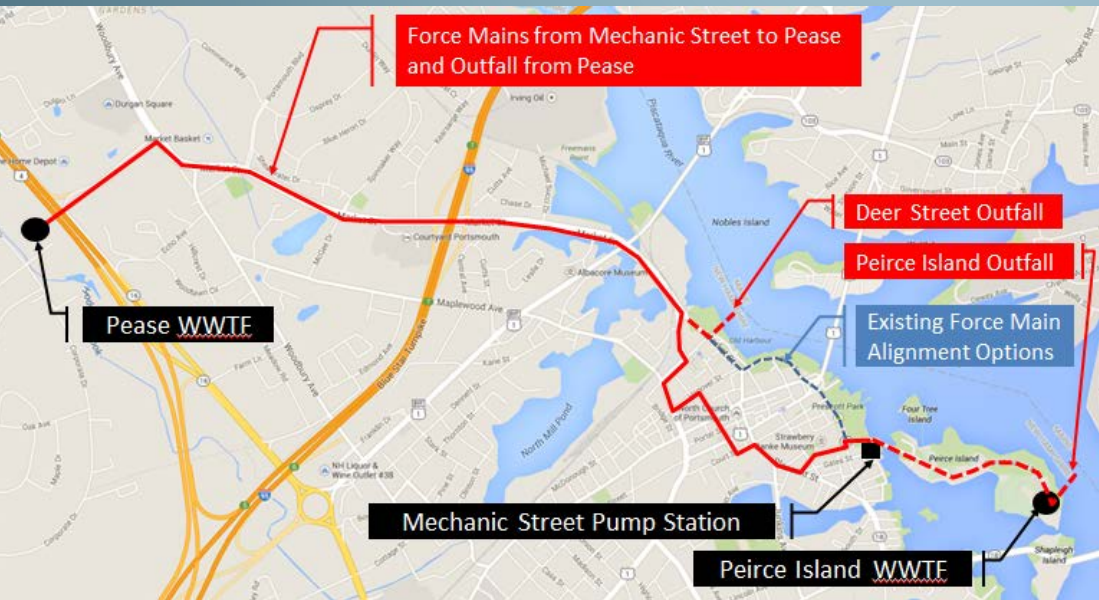
## 2013-2015 Final Design of WWTF Upgrades



# Peirce Island WWTF Timeline



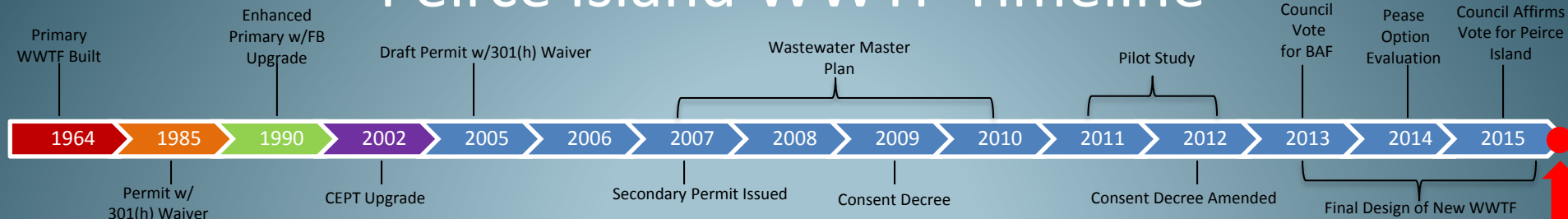
## 2014/2015 Pease Wastewater Option Evaluation



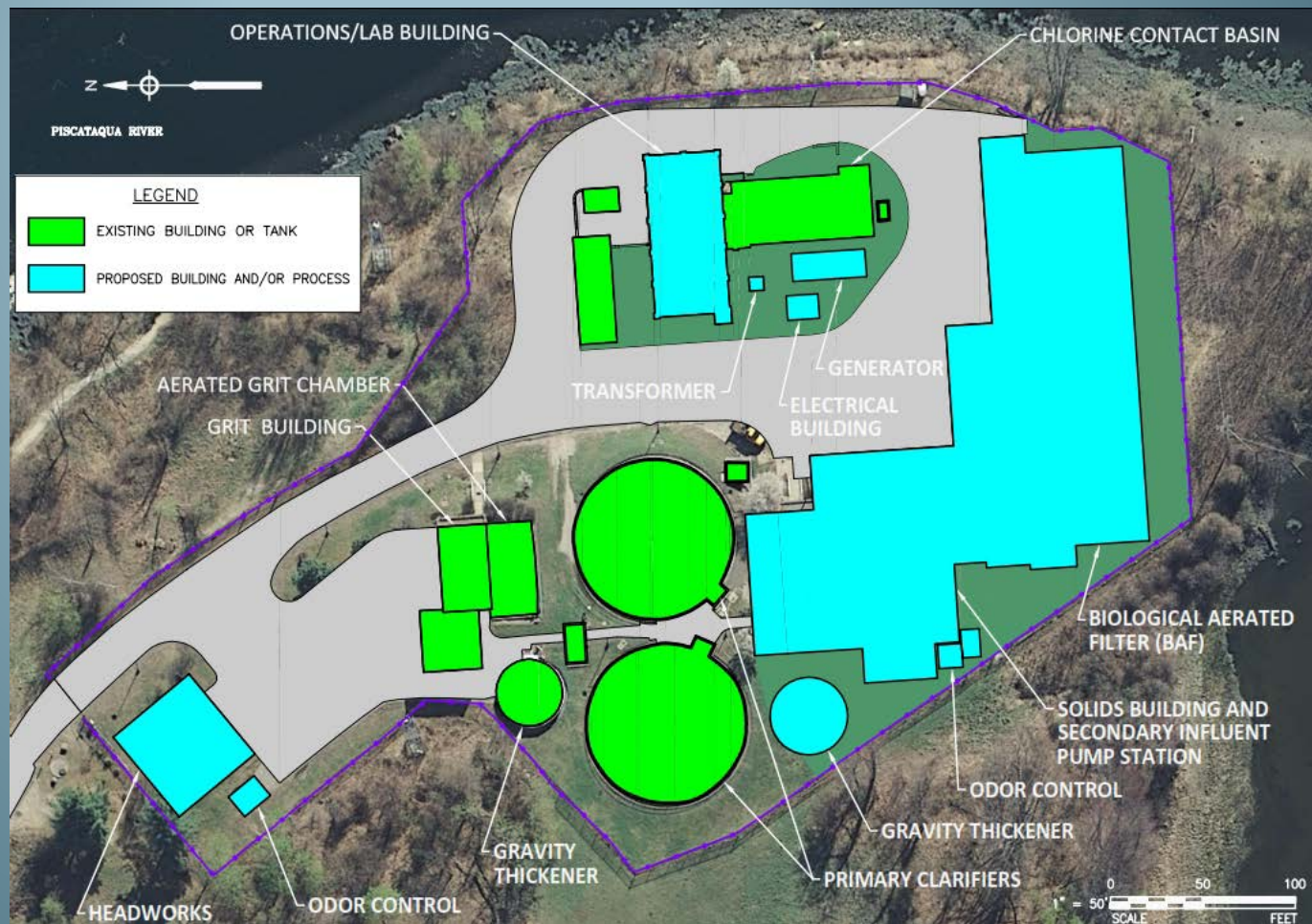
“...moved to reaffirm the City Council’s vote of April 8, 2013 to move forward with the Peirce Island Wastewater Treatment Facility Upgrade.” *City Council Vote May 18, 2015*



# Peirce Island WWTF Timeline

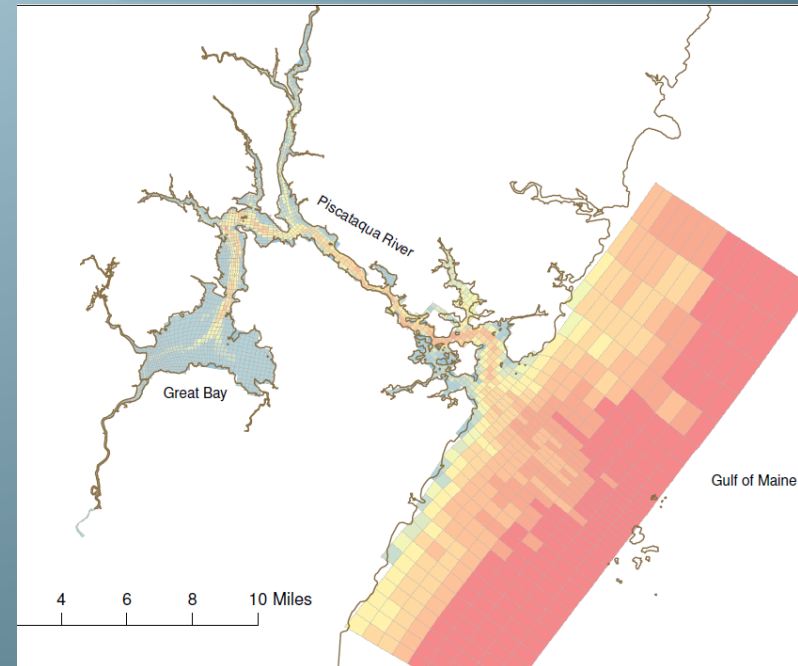
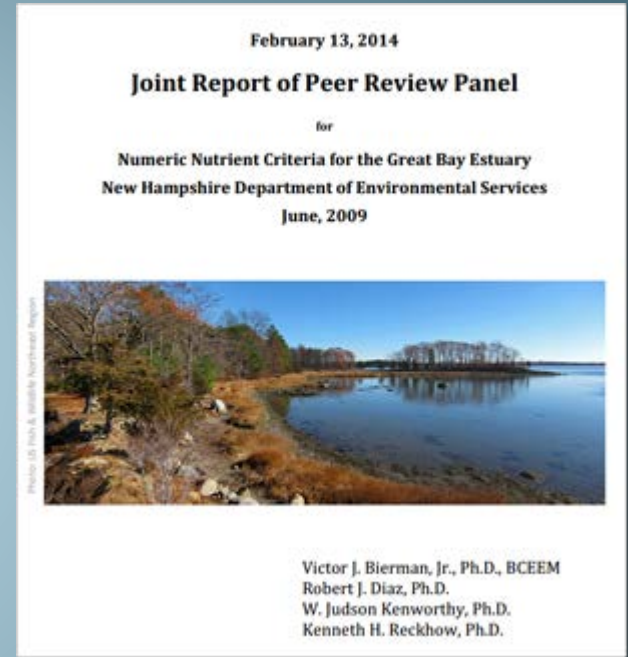


**Dec 2015  
Final Design of  
Wastewater  
Treatment  
Facility  
Complete**



# Concurrent Work

- Hydrodynamic Model of Great Bay Estuary
- Peer Review of Numeric Nutrient Criteria
- River Water Quality Sampling
- Eelgrass Mapping



# Concurrent Work

- Primary Clarifier and Gravity Thickener Upgrade
- Completed July 2015, \$1.7M



# Bidding and Construction Schedule

<u>Item</u>	<u>Completion Date</u>
100% Design	December 2015
Contractor Prequalification	Jan-Mar 2016
Bidding	Mar-May 2016
Contract Execution/NTP	July 1, 2016
Construction – BAF	
Substantial Completion	December 2019
Construction – Project	
Substantial Completion	May 2020



# Project Cost Estimate

Items	Cost (Million Dollars)
Primary Clarifier Project (Eng, Const, etc.)	\$1.7
Treatment Upgrade Design Phase	\$5.0
Construction & Contingency	\$70.4
Construction Admin & Oversight	\$6.7
Total Project Cost	\$83.8





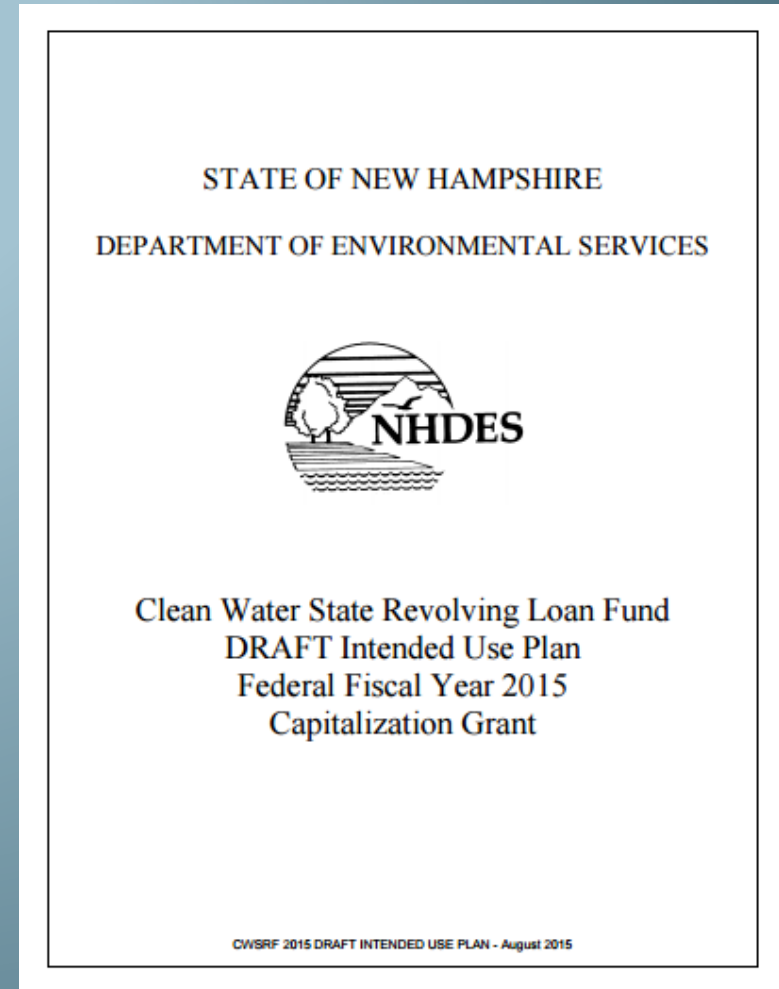
# Proposed Bond Authorization

Items	Cost (Million Dollars)
Total Project Cost	\$83.8
Previous Bond Authorization 8/5/13	\$10.0
Proposed Authorization	\$75.0



# Clean Water SRF

- Lock in Interest Rate 2.55%
- Principal Forgiveness of 5% (\$2.5M to \$3.7M)
- 20 Year Loan Term



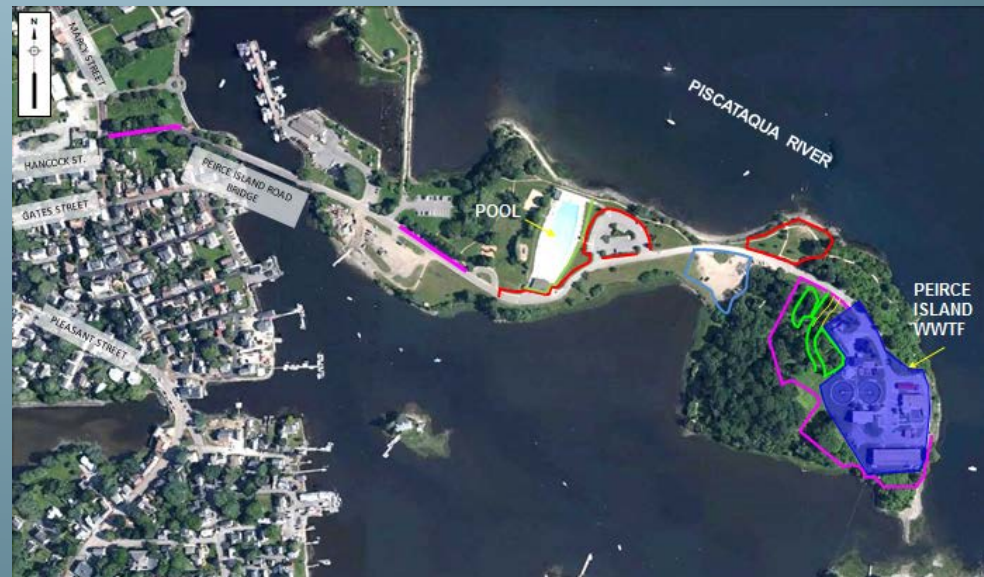
# Next Steps

- Prequalification of Contractors
- Council Bond Authorization
  - First Reading February 16, 2016
  - Second Reading/Public Hearing/Vote March 7, 2016
- Bid Period (March 8 to May 2016)
- Contract Award/NTP (July 1, 2016)
- Public Meetings
- Public Outreach
- Peirce Island Road Bridge Maintenance



# Public Meetings: Traffic and Safety Plans

- Present Traffic Impacts to Parking, Traffic and Safety Committee (Anticipated March 2016)
- Follow up with Joint City Council Work Session (PTS, Recreation Board, Peirce Island Committee)
  - Truck Routes
  - Parking Restrictions
  - Modifications
  - Safety Provisions
- City Council Vote



# Other Public Meetings

- Planning Board
- Prescott Park Trustees of the Trust
- Mayor's Blue Ribbon Committee on Trees & Greenery



# Stakeholder Meetings

- Strawberry Banke
- City-wide Neighborhood Committee
- Friends of the South End
- Chamber of Commerce
- Rotary
- Pease Development Authority (Harbor Master) and US Coast Guard



# Peirce Island Road Bridge

- Constructed 1958
- Typical Lifespan 50 Years
- Plan for Replacement
- Could be Eligible for NHDOT Municipal Bridge Aid Program with 80% Grant Funding
- Potential Replacement Cost \$7M



# Peirce Island Road Bridge

- Condition Assessment Results:
  - Showing Signs of Age
  - Deck Maintenance Needed





# Peirce Island Road Bridge

- Deck Maintenance Project
  - Extend Life to Take Advantage of DOT Funding
  - Avoid Repairs During WWTF Construction
- Estimated Cost Range: \$500,000 to \$800,000
- Schedule: 6 Months (to Sept 2016)
- Maintenance Project Impacts
  - One Way Alternating Traffic
  - Restricted Lane Width



# Questions

