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
Council Affirms Vote for Peirce Island

1964

1985

1990

2002

2005

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

Primary WWTF Built

Enhanced Primary w/FB Upgrade

Draft Permit w/301(h) Waiver

CEPT Upgrade

Wastewater Master Plan

Secondary Permit Issued

Consent Decree

Consent Decree Amended

Pilot Study

Council Vote for BAF

Pease Option Evaluation

Council Affirms Vote for Peirce Island

Final Design of New WWTF

February 1, 2016 Peirce Island WWTF Upgrade Update

Peirce Island WWTF Timeline

1990 – Filter Building Upgrade

1990 – Filter Building Upgrade
Peirce Island WWTF Timeline

2002 – Enhanced Primary Treatment Upgrade

- Enhanced
- Abandoned
In 2007, the Peirce Island WWTF Upgrade Project saw the issuance of its secondary permit. This marked a significant milestone in the project, leading to further improvements and enhancements over the subsequent years.

Key events in the Peirce Island WWTF Timeline include:
- 1964: Primary WWTF Built
- 1985: Enhanced Primary w/ FB Upgrade
- 1990: Draft Permit w/ 301(h) Waiver
- 2002: CEPT Upgrade
- 2005: Consent Decree
- 2007: Secondary Permit Issued
- 2008: Wastewater Master Plan
- 2009: Consent Decree Amended
- 2010: Pilot Study
- 2011: Pease Option Evaluation
- 2012: Final Design of New WWTF
- 2013: Consent Decree Amended
- 2014: Peirce Island
- 2015: Final Design of New WWTF

The timeline highlights the stages of the Peirce Island WWTF Upgrade Project, from its initial construction to the comprehensive upgrades and improvements that have been undertaken over the years.
2009 – Consent Decree
2010 – Wastewater System Master Plan
Peirce Island WWTF Timeline

2011 and 2012
Treatment Technology Piloting and Consent Decree Amendment

February 1, 2016
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


- Primary WWTF Built
- Enhanced Primary w/ FB Upgrade
- Draft Permit w/ 301(h) Waiver
- CEPT Upgrade
- Wastewater Master Plan
- Pilot Study
- Consent Decree
- Consent Decree Amended
- Final Design of New WWTF

Timeline:
- 2013-2015 Final Design of WWTF Upgrades

Additional Events:
- WWTF Built
- Enhanced Primary w/ FB Upgrade
- Permit w/ 301(h) Waiver
- CEPT Upgrade
- Secondary Permit Issued
- Consent Decree
- Consent Decree Amended
- Final Design of New WWTF

February 1, 2016
Peirce Island WWTF Upgrade Update
“...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
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

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

<table>
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<th>Items</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Primary Clarifier Project (Eng, Const, etc.)</td>
<td>$1.7</td>
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<tr>
<td>Treatment Upgrade Design Phase</td>
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<tr>
<td>Construction &amp; Contingency</td>
<td>$70.4</td>
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<td>Construction Admin &amp; Oversight</td>
<td>$6.7</td>
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<td>Total Project Cost</td>
<td>$83.8</td>
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# Proposed Bond Authorization

<table>
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<tr>
<th>Items</th>
<th>Cost (Million Dollars)</th>
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<tr>
<td>Total Project Cost</td>
<td>$83.8</td>
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<td>Previous Bond Authorization 8/5/13</td>
<td>$10.0</td>
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<td>Proposed Authorization</td>
<td>$75.0</td>
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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

• 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