

Torrington Water Pollution Control Facility Upgrade



Presented by:

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WRIGHT-PIERCE 
Engineering a Better Environment

Presentation Overview

- WPCF History
- Need for Current Project
- Recommended Plan
- Costs
- Public Awareness
- Schedule

- Questions



History of Past Improvements

- Originally Constructed 1939
- Secondary Treatment 1970
 - Sludge Processing
- Upgrade & Expansion 1994
 - Nitrification
 - Improved Disinfection
 - Bonded equally by City/WPCA (retired in 2014)
- Regional Fats, Oil & Grease (FOG) Facility 2010

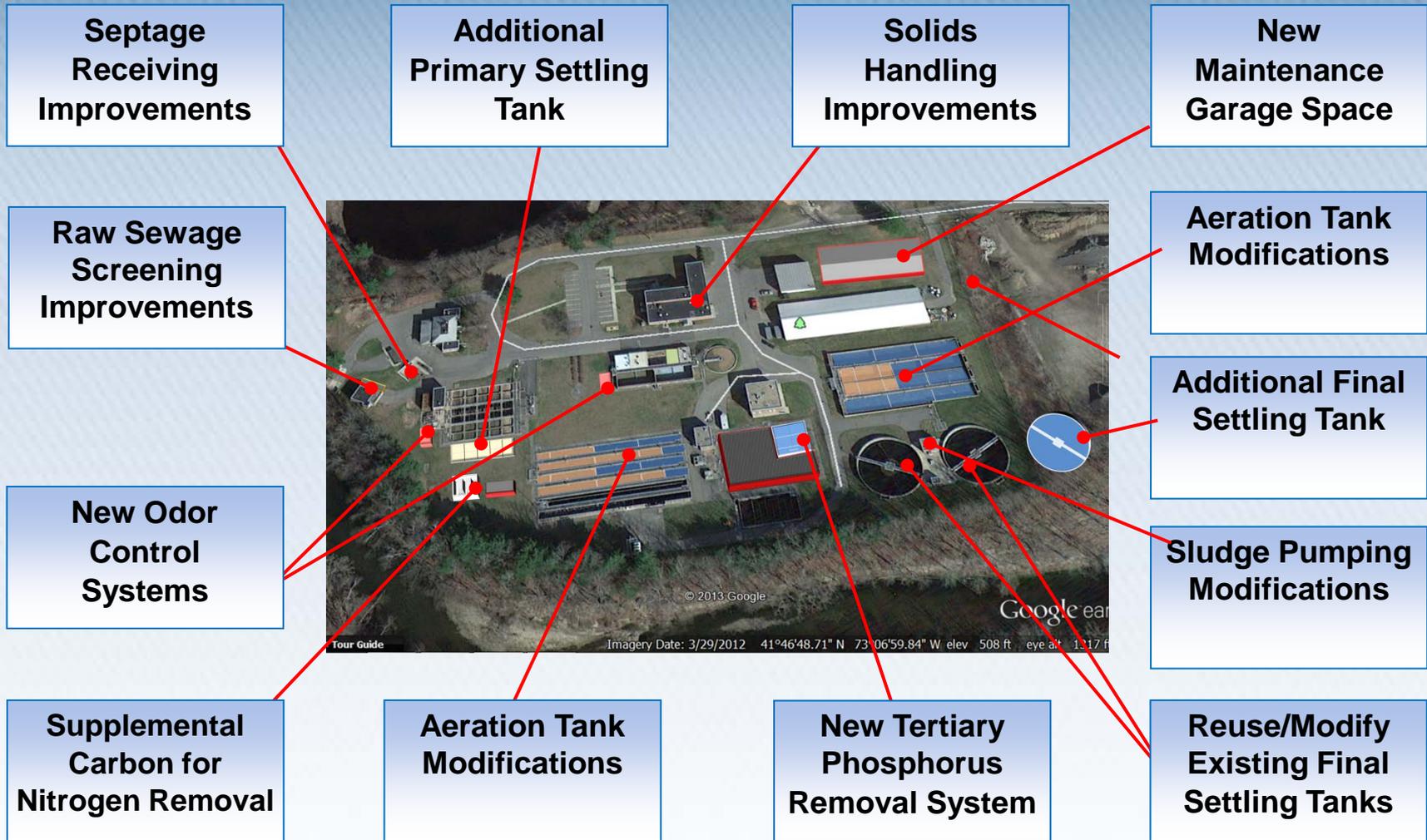


Need for Current Project



- WPCA Goals
 - Capacity for projected flows and loads within existing permit
 - Upgrade aging infrastructure
 - More stringent permit limits
 - ◆ Nitrogen (Protect Long Island Sound)
 - ◆ Phosphorus (Protect Naugatuck River decrease algae)
 - ◆ BOD₅/TSS
 - Improve Energy Efficiency/Green Technologies
 - Increased Resiliency for Storm Events

Recommended Plan



| Estimated Construction Costs | | Cost |
|---|-----------------|---------------------|
| Site Work | | \$3,035,000 |
| Process Piping | | \$1,451,000 |
| Screenings Building Modifications | | \$1,106,000 |
| Primary Clarifier #4 / Influent & Effluent Boxes | | \$1,362,000 |
| Septage Receiving Facility | | \$465,000 |
| Secondary Treatment Modifications | | \$2,893,000 |
| New Secondary Clarifier #6 | | \$1,240,000 |
| Tertiary Treatment Facility | | \$4,329,000 |
| Effluent / Disinfection Facilities | | \$728,000 |
| Odor Control Systems | | \$624,000 |
| New Sludge Handling Facilities | | \$1,386,000 |
| Maintenance / Equipment Storage / Garage | | \$1,750,000 |
| Laboratory Facilities Expansion | | \$275,000 |
| Roof Drainage System, Each Building | | \$100,000 |
| Miscellaneous Building Repairs | | \$327,000 |
| | Subtotal | \$21,071,000 |
| Specials | | \$505,000 |
| HVAC/Plumbing | | \$1,780,000 |
| Instrumentation | | \$750,000 |
| Electrical | | \$2,725,000 |
| | Subtotal | \$5,760,000 |
| Subtotal, General Construction | | \$21,071,000 |
| General Contractor OH&P and General Conditions | 20.0% | \$4,214,000 |
| Subtotal, Subcontractors | | \$5,760,000 |
| General Contractor Markup | 7.5% | \$432,000 |
| Bonds & Insurances | 2.0% | \$630,000 |
| UNIT PRICE ITEMS (Ledge Excav., Additional Materials, etc.) | 2.0% | \$421,000 |
| Subtotal, Construction Costs | | \$32,528,000 |
| Project Multiplier, Design Contingency, 20% | 1.20 | \$39,033,600 |
| Total 2014 Construction Cost (2 Yrs @ 4% Inflation) | 1.08 | \$42,200,000 |



Project Cost Estimated Total

| <u>Project Component</u> | <u>Cost</u> |
|------------------------------------|-----------------------------|
| Construction | \$42,200,000 |
| Construction Contingency (5%) | \$2,110,000 |
| Technical Services | \$6,330,000 |
| Value Engineering | \$150,000 |
| Legal / Administrative / Financing | \$420,000 |
| Engineers Estimate Of Cost | \$51,300,000 |
| Approximate 22% Grant | <u>-\$11,300,000</u> |
| Local Share | \$40,000,000 |

Project Cost Estimated Impact

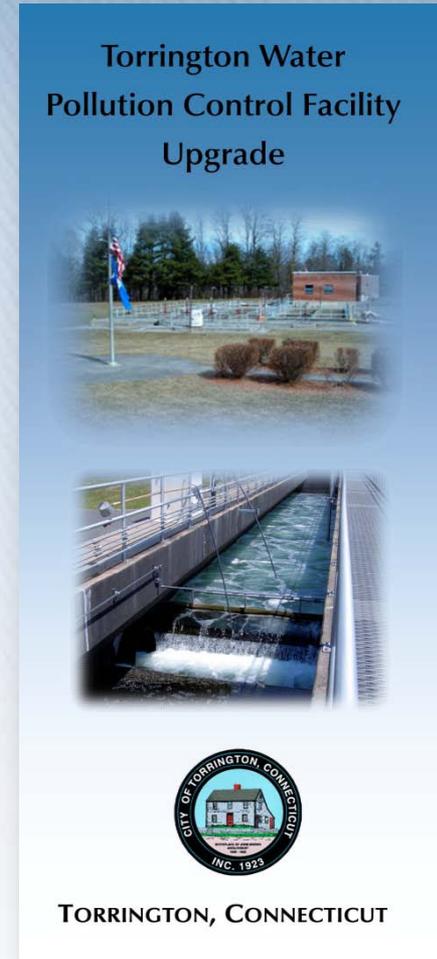
- Total Local share \$40,000,000
- 2% Loan over 20 years \$48,925,000

- Torrington Taxpayers \$1,245,000/yr
- Torrington Sewer Users \$1,245,000/yr
- Litchfield WPCA \$55,315/yr
- Harwinton WPCA \$27,405/yr

Public Awareness

- Posters and handouts in Town Hall
- All WPCA meetings are public
- Local newspapers & cable TV
- Information on website

http://www.torringtonct.org/Public_Documents/TorringtonCT_WaterPoll/index



Public Awareness

- WPCA Presentations to
 - Planning & Zoning
 - Inland Wetlands Commission
- *This* public information meeting
- Additional Presentations to be scheduled at local area groups (e.g. Chamber of Commerce, NWCOG, etc.)
- Future ideas

Anticipated Project Schedule

Upon successful referendum November 4, 2014:

- Preliminary Design March 2015
- 30% Value Engineering April 2015
- 60% Design January 2016
- 60% Value Engineering February 2016
- Final Design October 2016
- Public Bid December 2016
- Award Contract January 2017
- Construction Begins February 2017

Questions / Discussions



THICKENING IMPROVEMENTS

NOTE: ZONING SETBACK IS 50' TO PROPERTY LINE.

SEPTAGE IMPROVEMENTS & DISCHARGE PIPING MODIFICATIONS

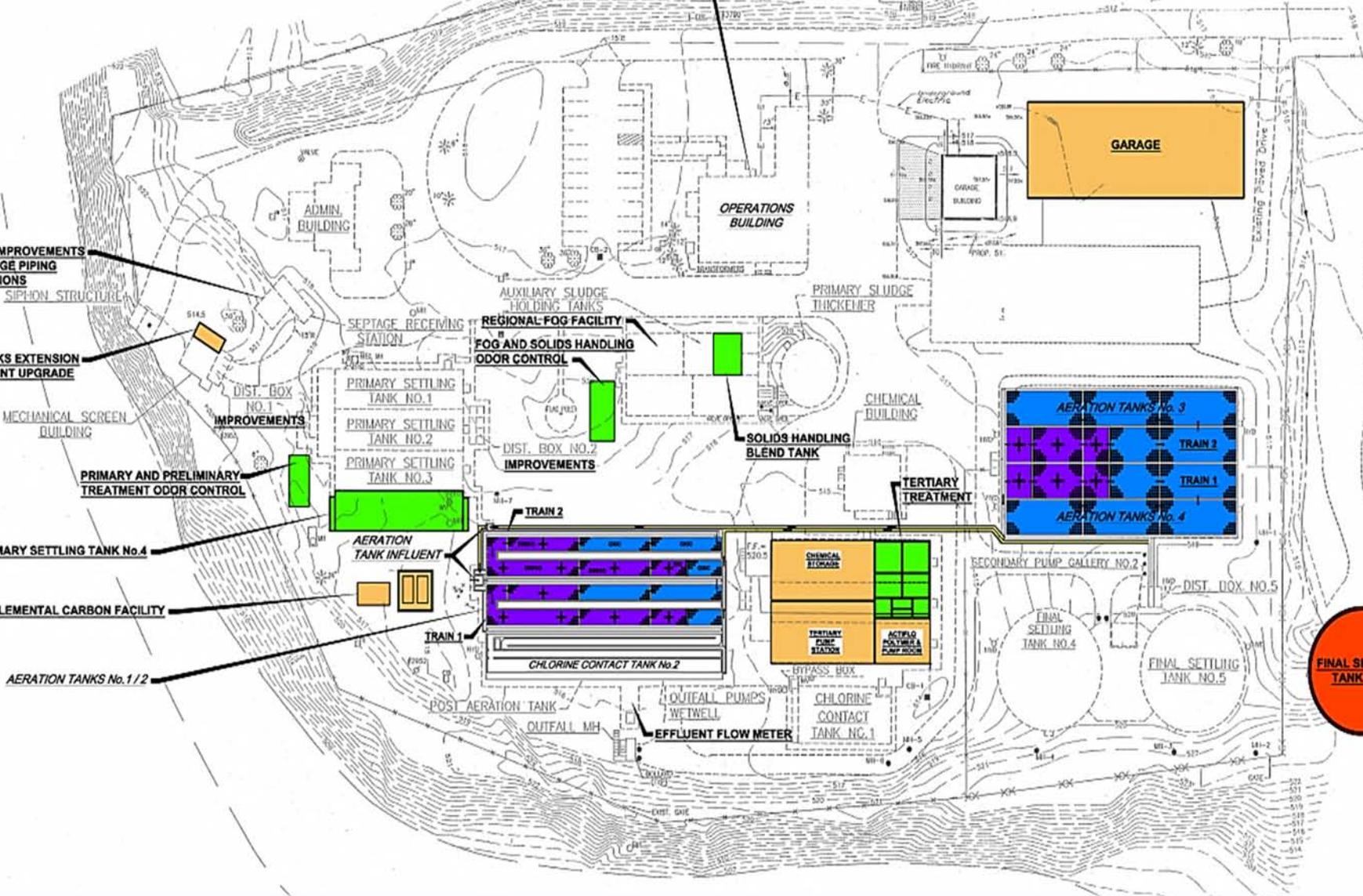
HEADWORKS EXTENSION & EQUIPMENT UPGRADE

PRIMARY AND PRELIMINARY TREATMENT ODOR CONTROL

PRIMARY SETTLING TANK No.4

SUPPLEMENTAL CARBON FACILITY

AERATION TANKS No.1/2



FINAL SETTLING TANK No. 6