STAMFORDWPCA

**TECHNICAL COMMITTEE MEETING MINUTES**
**Tuesday Oct 11, 2016**
**2nd Floor Conference Room**
**Building 11, 111 Harbor View Avenue**
**Stamford CT 06902**
**4:30 pm**

| | |
|---|---|
| Daniel Capano | Chairman, Technical Committee |
| Edward Kelly | Committee Member |
| Merritt Nesin | Committee Member (Absent) |
| William Brink | Executive Director, WPCA |
| William Degnan | Plant Supervisor, WPCA (Absent) |
| Prakash Chakravarti | Supervising Engineer, WPCA |
| Sephen Hadjiyane | Gannett Fleming Inc. |
| Timothy Dupuis | CDM Smith Inc. |
| Jonathan Kunay | CDM Smith Inc. |
| Richard Bailey | Sulzar Pump Services Inc. |
| Tom Raio | Sulzar Pump Services Inc. |
| Christopher Jordan | Sulzar Pump Services Inc. |

1. **Call to Order and Roll Call**
   D Capano called the meeting to order at 4:30 pm.
2. **Approval of September 14, 2016 Technical Committee Meeting Minutes**
   E Kelly made the motion to approve the minutes of the meeting for July 13, 2016. Seconded by D Capano. The motion carried 2-0-0
3. **Sludge Degritting Study Evaluation and Recommendations.**
   This item was taken out of order; S Hadjiyane of Gannett Fleming Inc. made a PowerPoint presentation to the Committee on their evaluation and recommendations for improvements to the primary degritting system. He said that their evaluation of the existing system indicated that the system was undersized and the flow into the cyclones was too low. He briefly outlined the systems that were looked into. They found that installing a larger cyclone would require major building expansion at significant cost. Their recommendation is to install a Slurry Cup system by Hydro International which would fit within the existing building footprint with some floor modifications. (The PowerPoint presentation is being made part of the meeting minutes)
4. **Update on Infiltration and Inflow Study.**
   J Kunay of CDM Smith Inc. gave the committee an update on the ongoing Infiltration & Inflow study they are doing for sanitary sewer system. He indicated that extending the flow metering to the end of July 2016 was very beneficial for the study, due to occurrences of certain prolonged and intense storm events.

He gave the members a draft report of their findings that identifies the sewer system sub areas where the infiltration and inflow were significant. Going forward, he gave the committee their recommendations for sewer rehabilitation from the pilot Sewer System Evaluation Survey (SSES), and the next phase of the project involving SSES work in the sub areas having the greatest infiltration and inflow.

5. **Dyke Lane Storm Water Pump Station 500 hp pump repair or replacement**
   W Brink said that one of the 500 hp pump at Dyke Lane has been out for rehab at the pump manufacture's shop. The cost estimate for repairs is about $200,000. He invited the representatives from Sulzer Pump Services, who are doing the repair to provide details to the technical committee on the nature of the repairs. R Bailey of Sulzer gave a description of the various items to be replaced. He emphasized the importance of the bearings, alignment of the bearings and the impeller casting on the pump performance. Following their presentation the committee asked the WPCA to investigate the costs for replacing the pump with a new pump with the same pumping capacity. (Sulzer Pump Services repair quotation is being made part of the meeting minutes)

6. **Five Year Capital Improvement Plan and Capital Budget Request for FY 17-18**
   W Brink presented the committee with the five year capital improvement plan. He stated that some of the major improvements such as upgrading the plant headworks, aeration blowers and emergency power generators and upgrading the ultra-violet disinfection system are likely to occur in the next couple of years. It will require a large revenue bond issue that could result in a large sewer rate increase. He will be revisiting the capital plan to more evenly distribute the debt service.
   P Chakravarti presented the committee with the capital budget request for FY 17-18. There are nine WPCA projects and two City projects that are managed by the WPCA. W Brink said that the appropriation request is being made with the intent to bond the funds necessary for construction in the next two fiscal years. P Chakravarti provided a brief description on the various requests. (The budget request is being made part of the meeting minutes)

7. **Update on UV System and Odor Control.**
   W.Brink indicated that there has been no issues with the UV system and there has been no odor complaints except an occasional complaint at the plant entrance at the south end of Harbor View and Pump Station Road. D Capano said that around noon time there was significant stench along Pumping Station Road. W Brink said that some fugitive odors could be attributed to a septic truck dumping at that time.

8. **Update on engineering studies and designs,**
   P Chakravarti had the following:

   a. **Wedgemere Road Area Sewers.**
      Attorney representing property owners 173 Eden Road and 193 Eden Road met with him and will have a response by Oct17, 2016.
   b. **Perna Lane.**
      No change in status
   c. **Arc Flash –Electrical preventive maintenance**
      The project engineers will be on site next week to meet with staff to plan how

to take electrical switchgear off line for preventive maintenance and to conduct arc flash analysis.

d. **Raw Sewage Pump Station and Aeration Blowers Upgrade.**
Preliminary study has been completed and we have to proceed to design phase of the projects. Engineering agreement for design will be presented for review at next meeting.

e. **Shed for sludge trailers.**
The project is on hold.

9. **Update on construction projects**
P Chakravarti had the following:

a. **SCADA System Upgrade**.
Arron Associates will be on site to do cutovers from the old system to the new SCADA system this month.

b. **Flow distribution to the secondary clarifiers and effluent pumps**
There was just one bid that was received and it is being reviewed by the engineers. W Brink indicated that the bid came in at the engineers estimate.

c. **Motor Control Center in the thickener building**
The contractor Industrial Drives and Controls have been on site and have installed the temporary power supply to the MCC location in the thickener building. He will be contacting them to move the project along.

d. **Dyke Lane pumping station upgrade.**
The bids for the upgrade construction work were received and a conditional award has been made to Holzner Electric Inc. The contract is being reviewed by the Federal Economic Development Administration.

10. **Old Business**
There was no old business discussed.

11. **New Business**
There was no new business discussed.

Ed Kelly made the motion to adjourn the meeting, which was seconded by D Capano. Motion carried 2-0-0. The meeting was adjourned at 8:30 pm.

Gannett Fleming

*Excellence Delivered **As Promised***

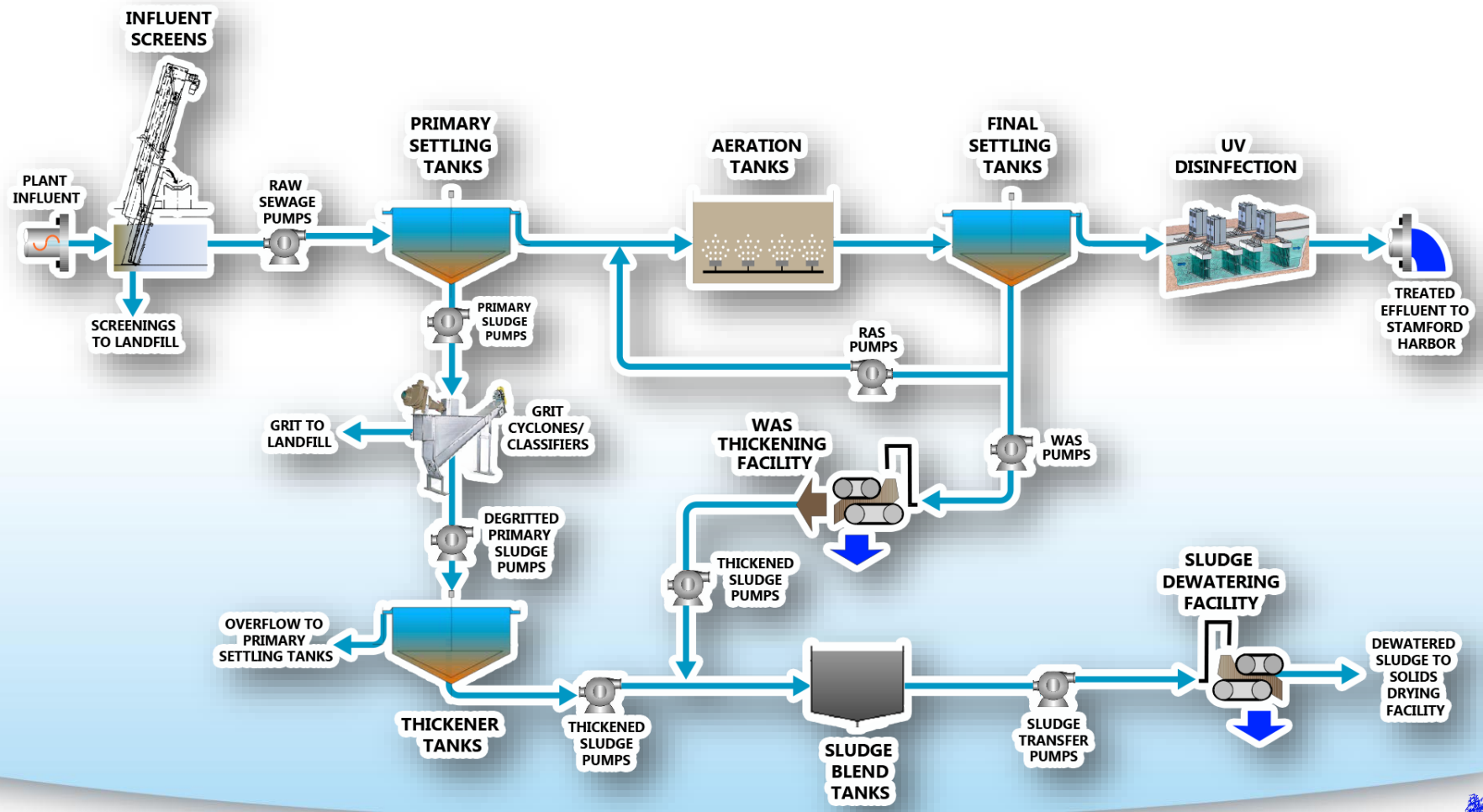
# Wastewater Engineering Services –

## TASK 4: SLUDGE DEGRITTING SYSTEM IMPROVEMENTS

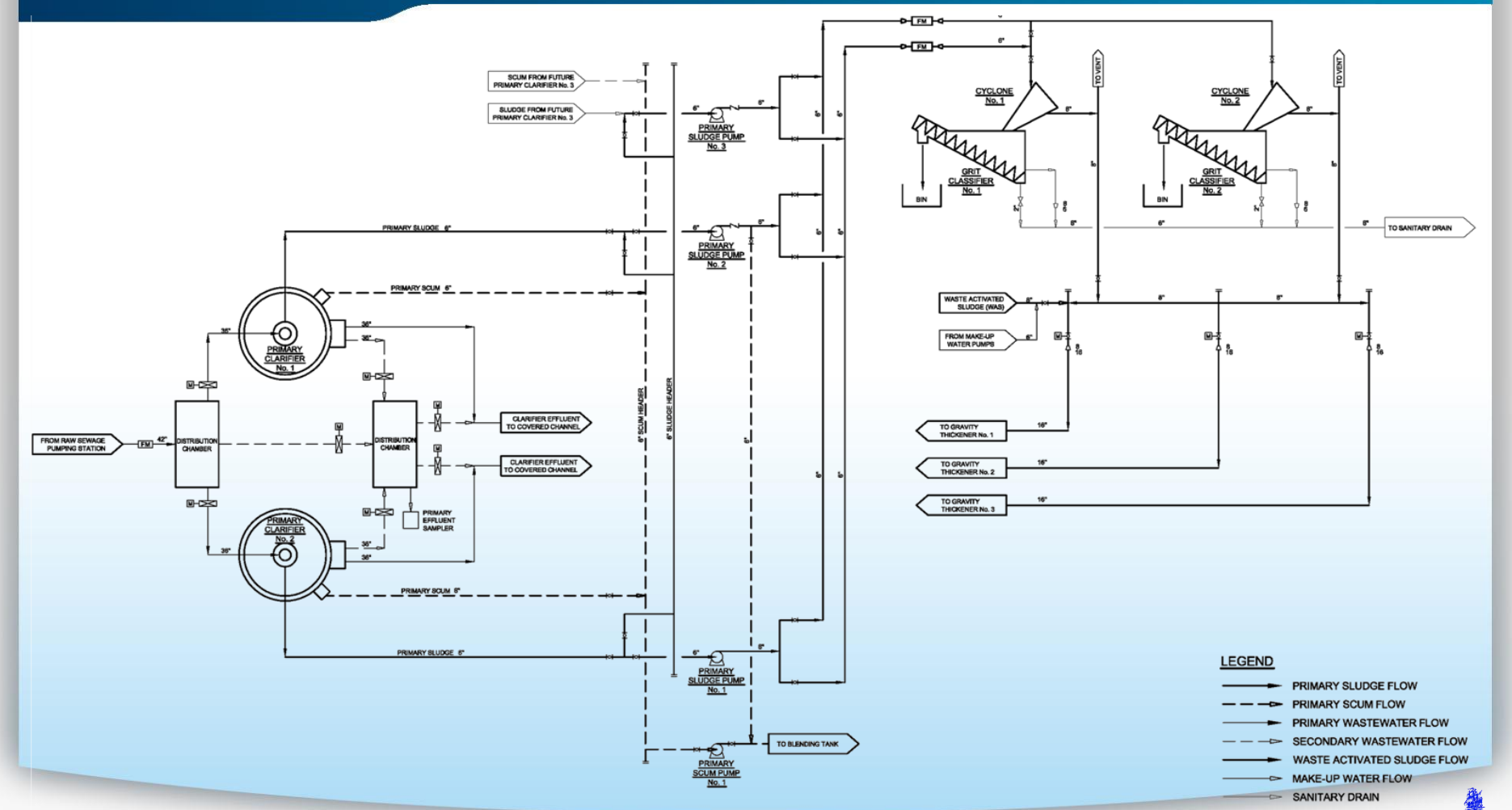
# Purpose of Study

- Identify operational issues
- Analyze current and projected plant loadings
- Review alternate grit removal systems
- Develop design basis for replacement degritting equipment
- Prepare opinion of probable construction cost

# Existing Process Flow Diagram



# Existing Degritting Process Flow Diagram



# Basis of Design

- Monthly operating data (January 2011 - August 2015)
- Developed material balances
  - Current average: 16.3 MGD
  - Design average: 24.0 MGD
  - Design maximum month: 31.2 MGD

# Findings

- Current design primary sludge production is less than actual production
- Future upgrades design based on 24.0 MGD design average flow and historical sludge production

# Design Parameters

| | |
|---|---|
| Primary Sludge Solids Production | 48,300 lb/day |
| Primary Sludge Flow Production | 930 gpm (1.34 MGD) |
| Primary Sludge Concentration | 4,300 mg/L (0.43%) |
| Peak Flow @ 2.0 Peaking Factor | 1,860 gpm |

# Grit Removal System Alternatives

| Alternative No. | Description |
|---|---|
| 1 | New classifiers and cyclones |
| 2 | New classifiers with Huber Coanda® Grit Washer System |
| 3 | New Eutek SlurryCup™ and Grit Snail® System |

Primary sludge pumping arrangements were also evaluated to optimize performance.

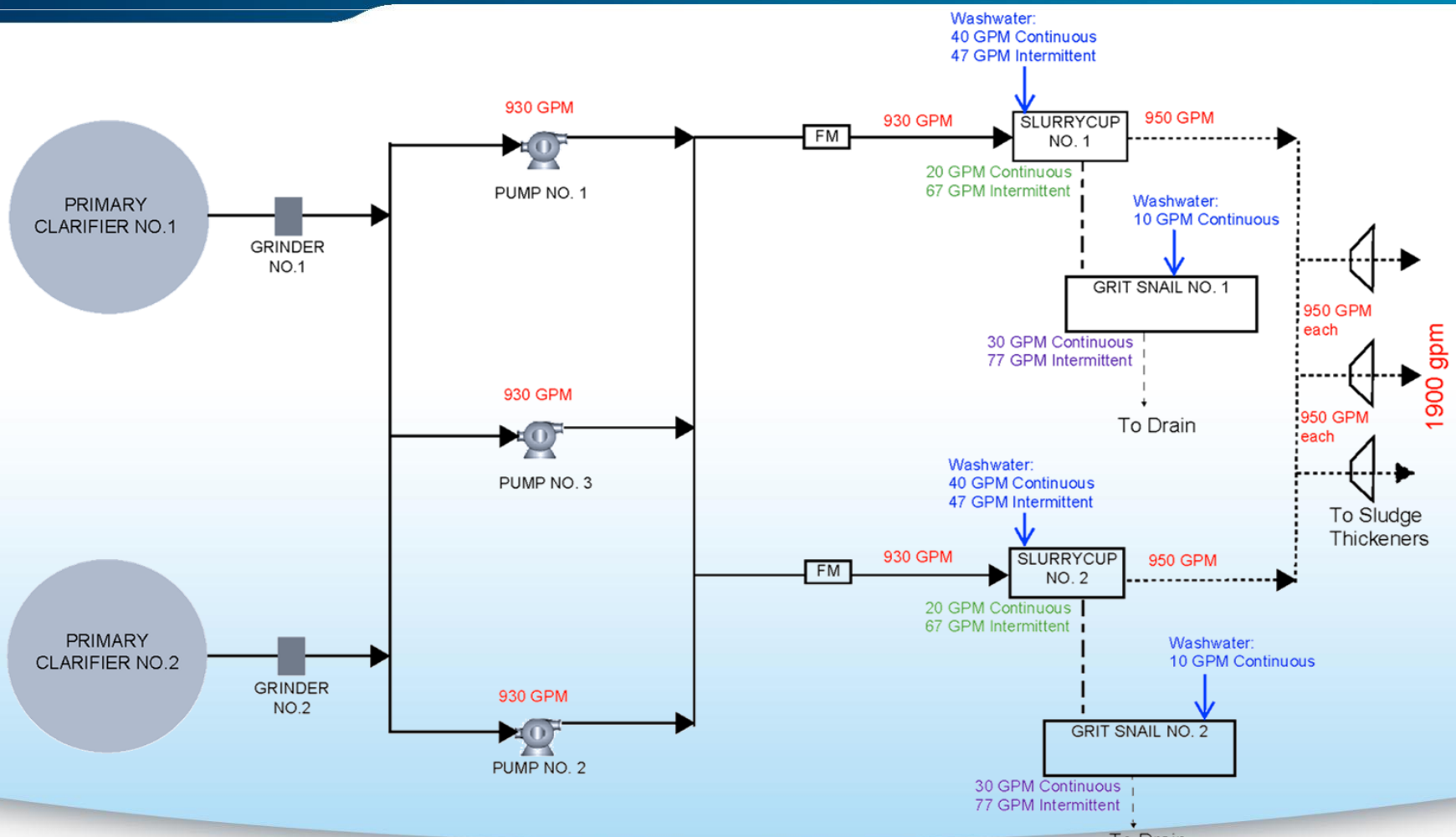
# Grit Removal System Alternatives

| Alternative No. | Advantage | Disadvantage |
|---|---|---|
| 1. New Classifiers/Cyclone | • Operator familiar with technology<br>• Conventional/Proven technology | • Building expansion required |
| 2. New Classifiers/Huber Coanda Grit Washer | • Better grit washing/organics separation<br>• Higher performance degritting<br>• Dryer grit/low organics<br>• Reduces odors | • Building expansion required<br>• Limited experience primary sludge degritting<br>• No similar installation |
| 3. Eutek Slurry Cup/Grit Snail | • Better grit washing/organics separation<br>• Higher Performance degritting<br>• Dryer grit/low organics<br>• Reduces odors | • Building mezzanine to be modified<br>• Ceiling clearance is 3ft |

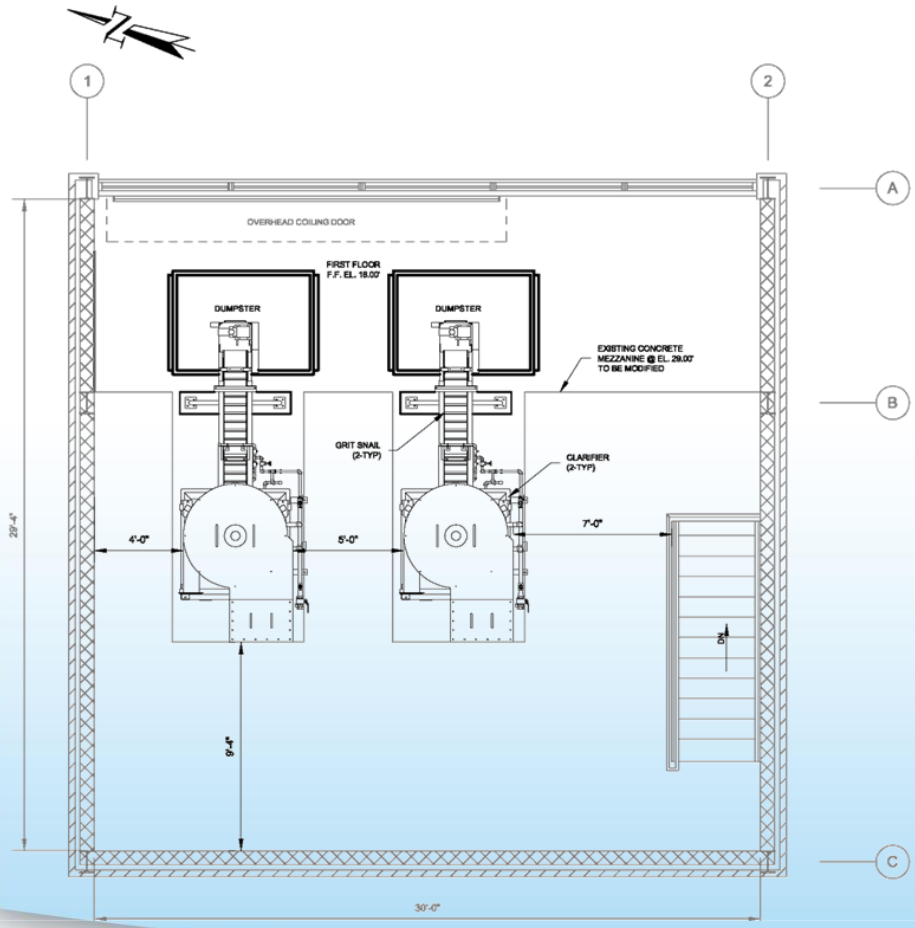
# Recommendation

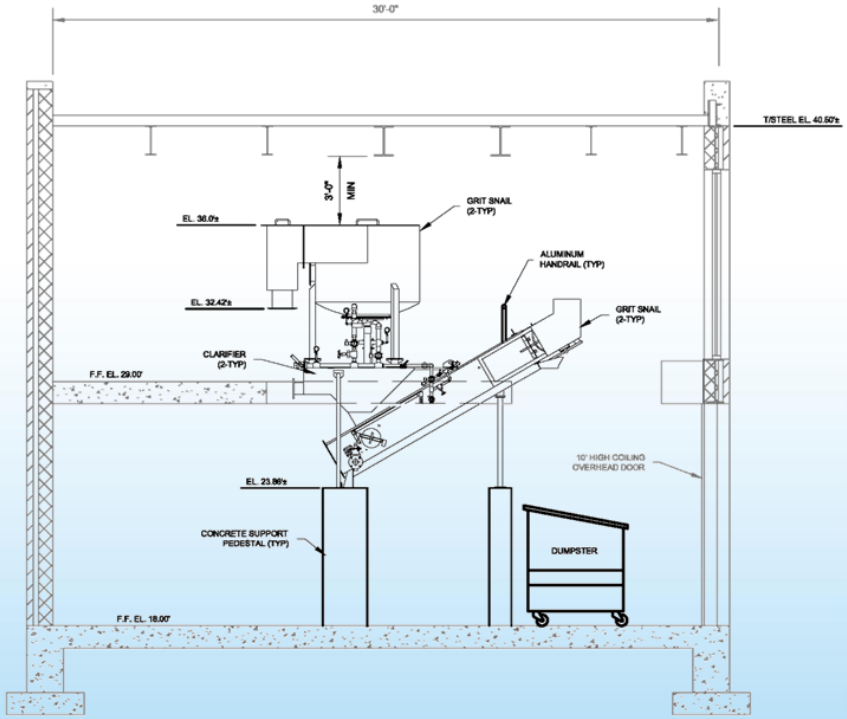
- Eutek SlurryCup™ / Grit Snail® System by Hydro International
- Best technology as a retrofit for building configuration
- Hydro International claims
  - Higher sludge degritting performance
  - Better organics removal
- System capable of producing dryer grit / lower organic content
- Less odor for storage and landfill disposal

# Conceptual Flow Schematic

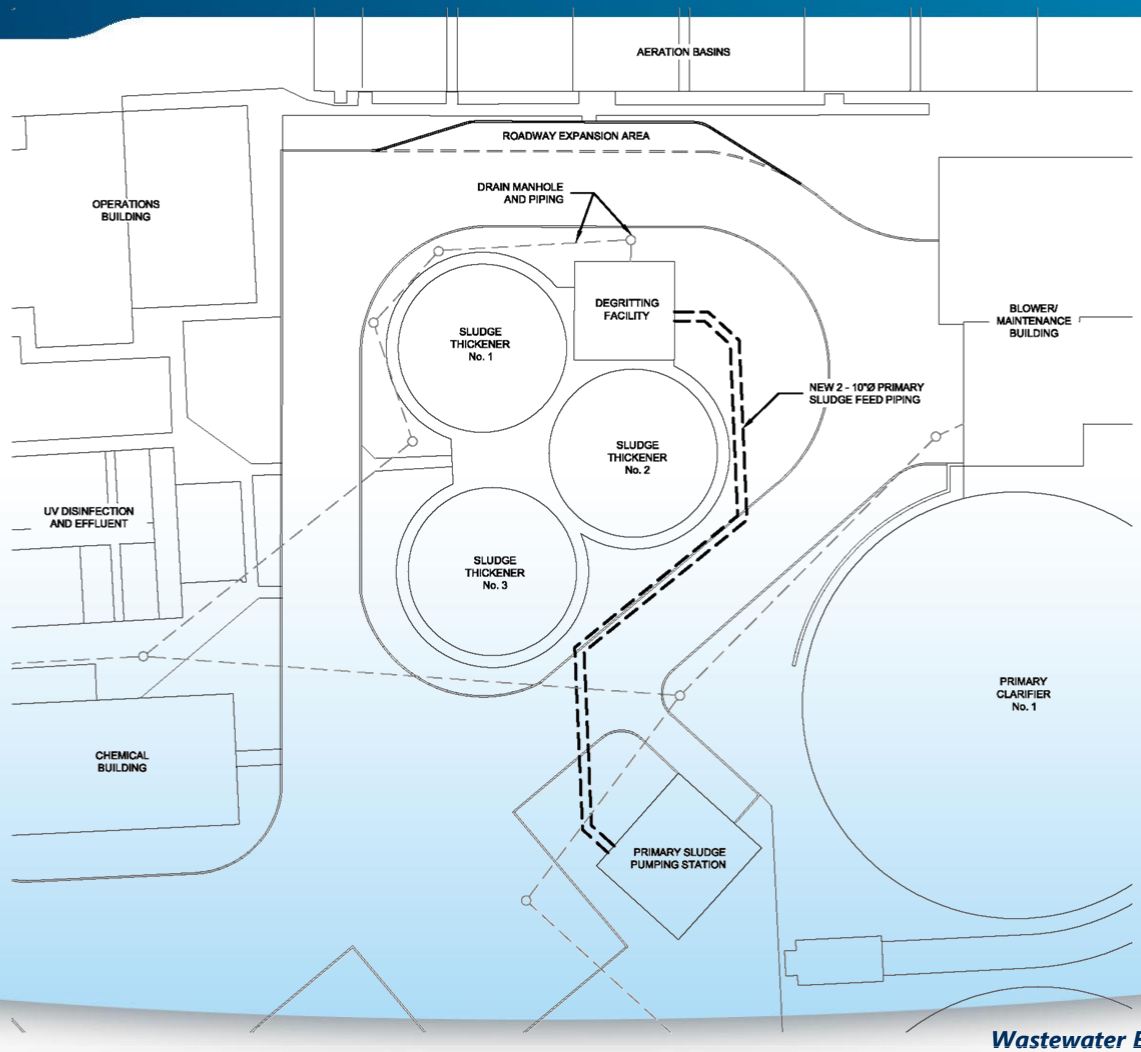


# Equipment Plan and Section



# Proposed Site Plan



# Opinion of Probable Cost

| | | |
|---|---|---|
| 1 | Eutek SlurryCup™ / Grit Snail® System | $685,100 |
| 2 | Grit Building Modifications | $127,000 |
| 3 | Primary Sludge Pumping System | $365,900 |
| 4 | Grinders System | $279,900 |
| 5 | Yard Piping | $83,000 |
| 6 | Site/Civil Work | $13,000 |
| 7 | Electrical/Grit Building | $80,000 |
| 8 | Electrical/Primary Sludge Building/MCC Modifications | $100,000 |
| 9 | Instrumentation and Controls | $226,000 |
| 10 | Maintenance of Plant Operations | $200,000 |
| 11 | **Subtotal Cost** | **$2,159,900** |
| 12 | General Requirements/O&P/Bond/Insurance | $734,400 |
| 13 | **Subtotal Cost** | **$2,894,300** |
| 14 | Contingency | $1,158,000 |
| 15 | Escalation to Midpoint of Construction | $87,000 |
| 16 | **Total Estimated Cost (2016 Dollars)** | **$4,100,000** |

# Next Steps

- Visit Seneca Fall WWTP
- Engineering Report
- Design Drawings and Specifications

Gannett Fleming

*Excellence Delivered **As Promised***

# ***Thank You***

# Questions & Answers

# Misc Facility Pictures

# Misc Facility Pictures

# Misc Facility Pictures

# Misc Facility Pictures

# Misc Facility Pictures

# Misc Facility Pictures

Sulzer Pump Services (US)
Eastern Service Center
Dave Cook
Repair Engineer
621 Heron Drive
Bridgeport, NJ 08014
Tel. (856) 467-2400
Fax (856) 467-0072
dave.cook@sulzer.com

City of Stamford
71 Dyke Lane
Stamford, CT

Attention: Mr. Mike Marciano

Your reference: PO 230788
Our reference: CSS-17752
100227872
Date: July 15, 2016

Subject: Sulzer Vertical Pump, Model 42 PS, S/N JX-2989

Dear Mike:

Thank you for the opportunity to offer our services to repair the above referenced pump. We have completed the disassembly and inspection and are pleased to issue our repair quotation.

Upon receipt, both visual and dimensional inspections were performed. The visual inspection revealed excessive erosion damage. Following the visual inspection, all components were thoroughly cleaned/sandblasted for dimensional inspection. The results of that inspection and our recommended workscope are as follows:

**Base Plate/Motor Stand**
Inspection results:
- Tensioning plate had a patch ring installed
- discharge elbow register fit is completely machined off, thinning the baseplate
- Tensioning plate and patch ring cut at field disassembly
- Cuts extended into base plate
- Tension Plate mounting tapped holes in poor condition

Recommended Repair:
- Recommend replacement
- Coat all needed surfaces with gray epoxy paint

**Underground Discharge Elbow**
Inspection results:
- Both registers washed and out of tolerance
- Discharge pipe worn at pipe coupling area
- All pipe wall thickness below 3/8" min.

Recommended Repair:
- Recommend replacement
- Coat all wet surfaces with Bitumastic 300M epoxy paint

**Column**
Inspection results:
- Heavy erosion damage

Recommended repair:
- Replacement required

**Discharge Bowl**
Inspection results:
- Cracks found in volute areas
- Register fits and bushings are in eroded and out of tolerance

Recommended repair:
- Recommend replacement
- Coat inside and outside with Bitumastic 300M epoxy paint

**Suction Bell**
Inspection results:
- Cracks found in rib support areas
- Ribs have severe erosion
- Tapered impeller fit severely eroded

Recommended Repair:
- Replacement is required

**Suction Bell Bushing**
Inspection results:
- Bore is worn oversize

Recommended repair:
- Replacement is Required

**Bowl-Tube Connector**
Inspection results:
- Part is eroded severly

Recommended Repair:
- Replacement is required

**(2) Bearings, Bowl, Tube Connector**
Inspection results:
- Bores are worn oversize

Recommended Repair:
- Replacement is required

**(3) Enclosing Tubes**
Inspection results:
- Cut at disassembly

Recommended Repair:
- Replacement is required
- Coat tubes with Bitumastic 300M

**(2) Lineshaft Screw Bearing Holders**
Inspection results:
- Siezed in enclosing tubes

Recommended Repair:
- Replacement is required

**(2) Lineshaft Screw Bearing Bushings**
Inspection results:
- Bore is worn oversize

Recommended repair:
- Replacement is Required

**Enclosing Tube Tensioning Plate**
Inspection results:
- Cut at disassembly

Recommended repair:
- Replacement is required

**Tube Tension Nut**
Inspection results:
- Dimensionally in tolerance

Recommended repair:
- Clean and reuse

**Tube Tension Nut Bushing**
Inspection results:
- Bushing was rubbed oversize

Recommended repair:
- Replacement required

**(2) Grease Seals**
Inspection results:
- No seals were installed in pump

Recommended repair:
- Replacement is required

**Pump Shaft**
Inspection results:
- Heavy wear on bushing area's

Recommended repair:
- Replacement is required

**Line Shaft**
Inspection results:
- Heavy wear on bushing area's

Recommended repair:
- Replacement is required

**Head Shaft**
Inspection results:
- Heavy wear on bushing area's

Recommended repair:
- Replacement is required

**(2) Shaft Couplings**
Inspection results:
- Cut at site for disassembly of pump

Recommended repair:
- Replacement required

**Impeller**
Inspection results:
- Bore slightly oversize

Recommended repair:
- Clean and polish
- Balance to OEM specification

**The following new parts will be supplied by Sulzer:**

| Qty | Description |
|---|---|
| 1 | Baseplate/Motorstand |
| 1 | Suction Bell |
| 2 | Suction Bell Bushings |
| 1 | Plate-Suction Bell Hub Cover |
| 1 | Discharge Bowl |
| 1 | Discharge Bowl Bushing |
| 1 | Tube Connector, Discharge Bowl |
| 1 | Bearing, Tube Connector |
| 2 | Grease Seals |
| 1 | Column |
| 2 | Lineshaft Screw Bearing Holders |
| 2 | Lineshaft Screw Bearings |
| 3 | Enclosing Tubes |
| 1 | Tube Tensioning Plate |
| 1 | Tube Tension Nut |
| 1 | Tube Tension Nut Bushing |
| 1 | Retainer Plate, Tube Tension Nut |
| 1 | Pump Shaft |
| 1 | Line Shaft |
| 1 | Lower Head Shaft |
| 2 | Thrust Studs |
| 2 | Shaft Couplings |
| 4 | Keys, Couplings |
| 1 | Smith-Blair steel Pipe Coupling 52x48.50 |
| 1 | (Lot) Grease fittings and Tubing |
| 1 | (Lot) Hardware |

All parts not listed in above work scope will be coat with Bitumastic 300M epoxy paint as needed. Pump will be preassembled at the Eastern Service Center to confirm fit and function. The pump will then be disassembled and prep for shipment to site where final assembly will be performed.

**The cost to perform the above will be: .....$199,636.55**
**Delivery:** 21 weeks ARO.

*****If awarded, please address all Purchase Orders to "SULZER PUMP SERVICES (US) INC."*****

Terms: Net 30 Days
F.C.A.: Bridgeport, NJ
Quote Validity: Pricing 30 Days from date above; Quoted Delivery valid for 7 Days

Unless otherwise specified in an existing agreement, Sulzer Pump Services (US) Inc. Terms and Conditions dated June 2014 shall apply to any order resulting from this proposal.

We thank you for the opportunity to offer our services. Should you have any questions regarding the above quotation, please feel free to contact us.

Sincerely,
Sulzer Pump Services
Eastern Service Center

Verified By:

*Dave Cook*

*Curtis Samuels*

Dave Cook
Repair Engineer

Curtis Samuels
Customer Service Manager

Cc: C Jordan

Terms and Conditions can be found on the Internet under www.sulzer.com.

*Sulzer policy mandates that the equipment cannot ship without receipt of a purchase order in the agreed upon amount.*

*Any damaged or replaced items remaining after the job has shipped will be disposed of at Sulzer's discretion unless otherwise noted in the purchase order.*

# SULZER Pump Services (US) Inc.

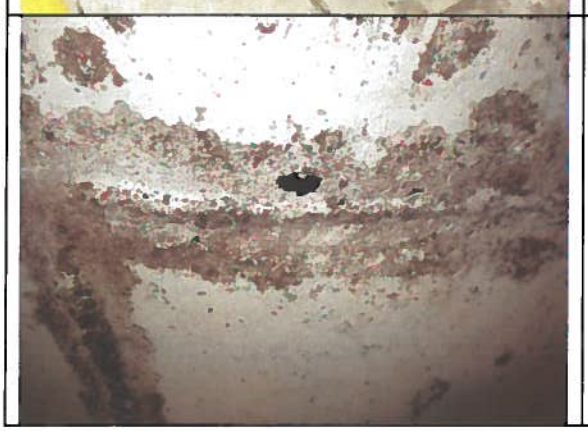
Eastern Service Center
621 Heron Drive
Bridgeport, NJ 08014
**(856) 467-2400 fax (856) 467-0072**

**Date: July 13, 2016**
**Customer Name: City of Stamford**
**ESC Repair Order #: 100227872**

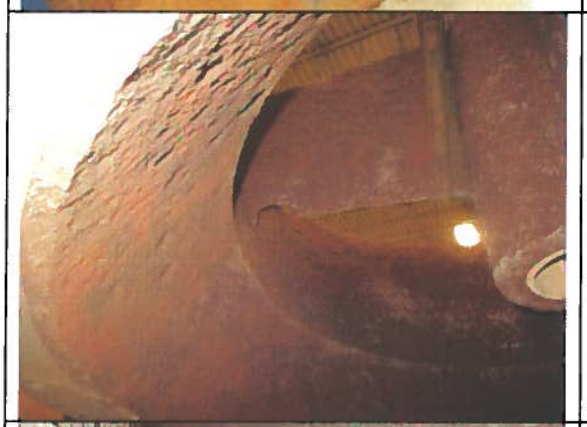
## *"As Found Photo's"*

| | |
|---|---|
| | **Baseplate**<br>**"As Received"** |
| | **Baseplate**<br>**Tube tension plate register fit**<br>**disassembly saw cuts in face** |
| | **No register fit for**<br>**elbow below base discharge** |

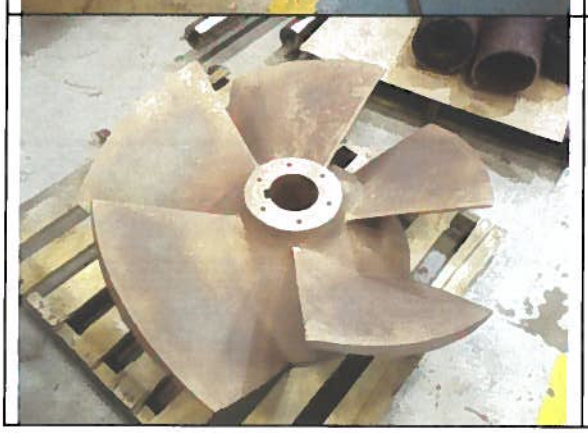
| | |
|---|---|
| | **Elbow below base discharge<br>Register fit to column<br>Eroded away** |
| | **Elbow below base discharge<br>Register fit to Baseplate<br>Eroded away** |
| | **Pipe erosion** |
| | **Discharge Pipe erosion<br>At Discharge pipe coupling** |

| | |
|---|---|
| | **Column with old Patch plate** |
|  | **Column with typical hole erosion** |

| | |
|---|---|
| | **Discharge Bowl with Register fits eroded away** |
| | **Discharge Bowl discharge vane cracks from previous repair** |
| | **Discharge Bowl Leading edge vane cracks and erosion** |
| | **Discharge Bowl Leading edge vane cracks and erosion** |

| | |
|---|---|
| | **As Received Suction bell Missing Hub Cover** |
|  | **Suction Bell Impeller Fit And register fit eroded away** |
| | **Suction Bell erosion** |
| | **Suction Bell Bearings** |

| | |
|---|---|
| | **Eroded Tube Connector with bearing** |
| | **Lineshaft Screw Bearing Holders Seized in Enclosing Tubes With bearings** |
| | **Eroded Tube Tension Nut on cut Enclosing Tube** |
| | **Pump shaft wear** |

| | |
|---|---|
| | Lower Head Shaft damage |
| | #1 Shaft Coupling<br>Had to be split at disassembly<br>For removal |
| | #2 Shaft Coupling<br>Damaged |
|  | Impeller |

New Pump Pricing

32 weeks Lead Time

Budgetary Price for this Pump will be: $297,525 USD

42PS - 1 Stage Bareshaft Pump in original materials includes Column & Discharge Head Assembly

This price does not include the following:
- Pump Performance Test
- Any customer witness points
- Suction Strainer
- Packing/Seal, Seal flush, Vent & Drain or Auxiliary Piping
- Soleplate, Motor, Coupling
- Instrumentation or other accessories
- Any document submittals or IOM manuals

Painting will be current Sulzer standard and color for service.

**SWPCA Capital Improvement Plan**
**10/5/16**

| DESCRIPTION | ESTIMATED COST | FY16-17 | FY17-18 | FY18-19 | FY19-20 | FY20-21 | FUNDED BY 2013 REVENUE BONDS | FUNDED BY 2015 REVENUE BONDS | FUNDED BY 2017 REVENUE BONDS | SCHEDULE | DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Treatment Plant** | | | | | | | | | | | |
| **WPCF MAJOR REPLACEMENT AND REPAIRS** | | | | | | | | | | | |
| CONCRETE REPAIRS AT PLANT SITE | $ 100,000 | | $ 100,000 | | | | | | $ 100,000 | 6 MONTHS | REPLACE CONCRETE THAT IS DETORIATING AT VARIOUS AREAS AT THE PLANT. |
| MISC WPCF EQUIPMENT REPLACEMENTS | $ 750,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | | $ 300,000 | | REPLACE PUMPS AND MIXERS AS NEEDED |
| PRIMARY CLARIFIER No 1 REHABILITATION | $ 300,000 | | $ 300,000 | | | | | | $ 300,000 | 15 MONTHS | REPLACE MECHANICAL EQUIPMENT IN PRIMARY CLAIFIER |
| FINAL CLARIFIER N0 3 SKIMMER ARM REPLACEMENT | $ 50,000 | $ 50,000 | | | | | $ 50,000 | | | | |
| SLUICE GATES AND VALVES AT THE PLANT | $ 50,000 | $ 50,000 | | | | | | $ 50,000 | | 12 MONTHS | REPLACE EXISTING SLUICE GATES AND VALVES THAT ARE SEVERELY CORRODED |
| ADMIN BLDG HVAC | $ 200,000 | $ 100,000 | $ 100,000 | | | | | $ 200,000 | | | REPLACE BOILER AND BLACK IRON PIPING |
| ROOF LADDERS | $ 100,000 | $ 100,000 | | | | | $ 100,000 | | | | ADD SAFETY LADDERS |
| SLUDGE THICKENER BLDG MCC REPLACEMENT | $ 100,000 | $ 100,000 | | | | | $ 100,000 | | | | REPLACE AGED MCC |
| REPLACE PRIMARY SLUDGE FORCE MAINS | $ 250,000 | $ 250,000 | | | | | $ 250,000 | | | | |
| SECONDARY CLARIFIER FLOW DISTRIBUTION | $ 4,500,000 | $ 4,500,000 | $ - | $ - | $ - | | | $ 4,500,000 | | 24 MONTHS | PROVIDE FLOW DISTRIBUTION BOX AND PIPING TO IMPROVE FLOW DISTRIBUTION TO SECONDARY CLARIFIERS, LOWER EFFLUENT PUMPS PIPING, LAUNDER COVER FOR FINAL CLARIFIER NO. 2 |
| **SUBTOTAL WPCF MAJOR REPAIRS** | $ 6,400,000 | $ 5,300,000 | $ 650,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 650,000 | $ 4,750,000 | $ 700,000 | | |
| **UPGRADE PLANT HEADWORKS** | | | | | | | | | | | UPGRADE RAW SEWAGE PUMP STATION WHICH IS ALMOST 40 YEARS OLD. REPLACE PUMPS AND MECHANICAL SCREENS AND PROVIDE A NEW SEPTAGE RECEIVING STATION. |
| a Design phase engineering services | $ 790,000 | $ 790,000 | | | | | | $ 790,000 | | 12 MONTHS | |
| b Construction phase engineering servcices | $ 750,000 | | $ 375,000 | $ 375,000 | | | | | $ 750,000 | | |
| c Construction costs | $ 9,520,000 | | $ 4,760,000 | $ 4,760,000 | | | | | $ 9,520,000 | 30 MONTHS | |
| | $ - | | | | | | | | | | |
| **AERATION BLOWERS AND EMERGENCY POWER GENERATOR** | $ - | | | | | | | | | | MODIFY AIR PIPING, ADD DO CONTROL, EXPAND PRE ANOXIC ZONE, REPLACE AERATION BLOWERS |
| a Design phase engineering services | $ 660,000 | $ 660,000 | | | | | | $ 660,000 | | 12 MONTHS | |
| b Construction phase engineering sevices | $ 640,000 | | $ 320,000 | $ 320,000 | | | | | $ 640,000 | | |
| c Construction costs | $ 8,500,000 | | $ 4,250,000 | $ 4,250,000 | | | | | $ 8,500,000 | 24 MONTHS | |
| | $ - | | | | | | | | | | |
| **SCADA SYSTEM UPGRADE** | $ - | | | | | | | | | | REPLACE SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEM THAT IS NOW OBSOLETE |
| b Remaining programming and hardware installation | $ 340,000 | $ 340,000 | | | | | | $ 340,000 | | 15 MONTHS | |
| | $ - | | | | | | | | | | |
| **REPLACE UV SYSTEM** | $ - | | | | | | | | | | REPLACE UV EQUIPMENT WHICH WILL 15 YEARS OLD AND AT END OF USEFUL LIFE BY 2019 |
| a Design and Pre Select equipment | $ 400,000 | $ 400,000 | | | | | | $ 400,000 | | 12 MONTHS | |
| b Construction costs | $ 5,200,000 | | $ 2,600,000 | $ 2,600,000 | | | | | $ 5,200,000 | 18 MONTHS | |
| | $ - | | | | | | | | | | |
| **SLUDGE STORAGE TRAILER** | $ 500,000 | $ 500,000 | | | | | | $ 500,000 | | **9 MONTHS** | PRE ENGINEERED BUILDING TO STORE SLUDGE TRAILERS FOR ODOR CONTROL |
| | $ - | | | | | | | | | | |
| **SLUDGE DEGRITTING SYSTEM UPGRADE** | $ - | | | | | | | | | | |
| a Design and Pre Select equipment | $ 400,000 | | $ 400,000 | | | | | | | | |
| b Construction costs | $ 5,500,000 | | | $ 2,750,000 | $ 2,750,000 | | | | | | |
| **SUBTOTAL WPCF MAJOR REPAIRS AND UPGRADE PROJECTS** | $ 39,600,000 | $ 7,990,000 | $ 13,355,000 | $ 15,205,000 | $ 2,900,000 | $ 150,000 | $ 650,000 | $ 7,440,000 | $ 25,310,000 | | |
| **Pump Station Upgrades** | | | | | | | | | | | |
| EMERGENCY POWER GENERATORS | $ 250,000 | | $ 250,000 | | | | | | | 6 MONTHS | INSTALL PERMANENT GENERATORS AT BURWOOD ROAD(80KW) & CLAY HILL. (50KW) PUMP STATIONS AND PURCHASE 1 PORTABLE GENERATOR |
| ELECTRICAL UPGRADES AT PUMP STATIONS | $ 480,000 | $ 180,000 | $ 150,000 | $ 150,000 | | | $ 180,000 | | | | |
| ALVORD LANE PUMP STATIONS UPGRADE | $ 825,000 | | $ 75,000 | $ 750,000 | | | | | | 12 MONTHS | |
| GREENWICH AVE PUMP STATION UPGRADE | $ 550,000 | $ 50,000 | $ 500,000 | | | | | $ 50,000 | | 12 MONTHS | REPLACE EMERGENCY POWER GENERATOR |
| MISC PUMP STATION EQUIP REPLACEMENTS | $ 600,000 | $ 150,000 | $ 150,000 | $ 100,000 | $ 100,000 | $ 100,000 | $ 150,000 | | | | REPLACE PUMPS AND EQUIPMENT AS NEEDED |
| | $ - | | | | | | | | | | |
| **SUBTOTAL PUMP STATION UPGRADES** | $ 2,605,000 | $ 380,000 | $ 1,125,000 | $ 1,000,000 | $ 100,000 | | $ 330,000 | $ 50,000 | | | |
| | $ - | | | | | | | | | | |
| VEHICAL REPLACEMENTS | $ 200,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ 50,000 | | | $ 50,000 | | | REPLACE VEHICLES THAT HAVE EXCEEDED THEIR USEFUL LIFE |
| **Sewer Rehabilitation** | | | | | | | | | | | |
| MISC SEWER REPLACEMENT AND REPAIRS | $ 750,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | $ 150,000 | | | | SPOT REPAIR OF SEWERS |
| MANHOLE COVERS | $ 250,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ 50,000 | $ 50,000 | | $ 50,000 | | | MANHOLE FRAME AND COVERS GET HIT BY PLOWS AND HAVE TO BE REPLACE REGULARLY DURING WINTER SNOW PLOWING AND LEAF PICKUP. |
| SEWER LINING, JOINT SEALING AND POINT REPAIRS | $ 7,300,000 | $ 500,000 | $ 1,700,000 | $ 1,700,000 | $ 1,700,000 | $ 1,700,000 | | $ 500,000 | | | REHABILITATE SEWERS DETERMINED TO HAVE EXECSSIVE I/I |
| **New Sewer Extension** | | | | | | | | | | | |
| WEDGEMERE ROAD SEWERS($ 3,500,000) | $ 3,500,000 | $ 3,500,000 | | | | | | $ 3,500,000 | | FALL 2016 | DESIGN COMPLETE |
| PERNA LANE AREA SEWERS ($ 5,000,000) | $ 5,000,000 | | $ 2,000,000 | $ 3,000,000 | | | | $ 2,000,000 | $ 3,000,000 | FALL 2016 | DESIGN COMPLETE |
| WEST VIEW LANE | $ 2,500,000 | | | $ 100,000 | $ 2,400,000 | | | | | FALL 2017 | PETITION FOR NEW SEWERS HAS BEEN FILED |
| MCGREGOR AREA SEWERS | $ 3,150,000 | | | $ 150,000 | $ 3,000,000 | | | | | FALL 2017 | PETITION FOR NEW SEWERS HAS BEEN FILED |
| CMOM (I/I Study and SSES funded by rev bonds) | $ 400,000 | $ 80,000 | $ 80,000 | $ 80,000 | $ 80,000 | $ 80,000 | $ 80,000 | | | ONGOING | PERFORM AN I/I STUDY AND SEWER SYSTEM EVALUATION SURVEY (SSES) TO COST EFFECTIVELY REMOVE I/I. COMPLETE INSPECTION OF SEWER INTERCEPORS AS PART OF CMOM PROGRAM |
| CMOM ( I/I Study and SSES funded by CWF grant) | $ 500,000 | $ 100,000 | $ 100,000 | $ 100,000 | $ 100,000 | $ 100,000 | $ - | $ - | | ONGOING | PERFORM AN I/I STUDY AND SEWER SYSTEM EVALUATION SURVEY (SSES) TO COST EFFECTIVELY REMOVE I/I. |
| **SUBTOTAL COLLECTION SYSTEM** | $ 21,470,000 | $ 4,430,000 | $ 4,130,000 | $ 5,380,000 | $ 7,530,000 | | $ 230,000 | $ 6,100,000 | | | |
| **TOTAL** | $ 63,525,000 | $ 12,800,000 | $ 18,610,000 | $ 21,585,000 | $ 10,530,000 | | $ 1,210,000 | $ 13,590,000 | | | |

# FY 17/18 Capital Project Lookup

Lookup prakash Agency Submission

pchakravarti

*Double click to open Project*

*Red Bar - Your totals do not match*

| | Project Num | Project Name | Agency | Contact Person | FY 17/18 Total | Totals With Out Years | FY 17/18 Submission | Priority | HTE Date - 9/30/2016 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Encumbered | Free Balance |
| 24 | C20052 | WEDGEMERE ROAD SEWERS | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 70,572.50 | 3,457,132.56 |
| 30 | C71282 | VEHICLE REPLACEMENT AND REPAIR | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 0.00 | 172,366.11 |
| 76 | C71196 | CMOM- SEWER CAPACITY MANAGEMENT, OPERATION & | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 168,163.39 | 791,613.00 |
| 97 | C22046 | PERNA LANE AREA SEWERS | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 4,614.25 | 5,848,154.07 |
| 98 | CP2047 | PROJECT GIS | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 38,256.00 | 439,651.28 |
| 198 | C22045 | CARRIAGE DRIVE SEWERS | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 0.00 | 1,313,024.82 |
| 233 | CP6567 | MILL RIVER STORMWATER MANAGEMENT | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 70.59 | 988,681.70 |
| 249 | C72044 | RELOCATE FACILITY MGT OFFICES/SHOPS | Operations: Administration - Maintenance | Chakravarti, Prakash | 0 | 0 | No | 0 | | |
| 259 | C50053 | REPAIR/REPLACE MAGEE AVE WALL | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 14,035.28 | 110,245.33 |
| 280 | CP6584 | INTERVALE AREA (16-4) | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 0.00 | 0.00 |
| 296 | CP5242 | EAST CROSS RD SEWERS | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 0.00 | 0.00 |
| 303 | CP2048 | LABORATORY ANALYTICAL EQUIPMENT | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 0.00 | -6,249.59 |
| 319 | C16011 | SEWERS-SECTION 18-1 | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 0.00 | 0.00 |
| 320 | CP4241 | SLUDGE PROCESSING SYSTEM | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 0.00 | 0.00 |
| 425 | CP5233 | WEST VIEW LANE AREA SEWERS | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 0 | 0 | No | 0 | 0.00 | 100,000.00 |
| 87 | CP4242 | SANITARY SEWER REHABILITATION | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 2,000,000 | 0 | Yes | 1 | 118,548.42 | 2,556,304.26 |
| 421 | CP5051 | SCADA SYSTEM UPGRADE | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 150,000 | 0 | Yes | 2 | 464,545.24 | -24,617.92 |
| 119 | CP6904 | WPCA MAJOR REPLACEMENT | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 600,000 | 0 | Yes | 3 | 284,405.57 | 5,432,516.94 |
| 530 | CP6599 | Dyke Lane Pump Station Upgrade | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 150,000 | 0 | Yes | 4 | 41,822.00 | 2,623,539.64 |
| 184 | CP9270 | SANITARY PUMPING STATION UPGRADE | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 1,000,000 | 0 | Yes | 5 | 2,495.00 | 1,469,282.89 |
| 75 | C71201 | UPGRADE OF ULTRA-VIOLET DISINFECTION SYSTEM | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 4,600,000 | 0 | Yes | 6 | 0.00 | 1,017,307.75 |
| 422 | CP5147 | UPGRADE PLANT HEADWORKS | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 660,000 | 0 | Yes | 7 | 0.00 | 10,200,000.00 |
| 424 | CP5025 | AERATION BLOWERS UPGRADE | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 1,200,000 | 0 | Yes | 8 | 0.00 | 8,600,000.00 |
| 86 | CP5241 | STORM WATER PUMP STATIONS | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 100,000 | 0 | Yes | 9 | 59,111.40 | 212,538.60 |
| 562 | NEW | PRIMARY SLUDGE DE-GRITTING SYSTEM | Special Revenue - Water Pollution Control | Chakravarti, Prakash | 4,100,000 | 0 | Yes | 10 | | |

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**CP4242** **SANITARY SEWER REHABILITATION**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | $2,556,304.26 | **Priority** | |
| **Funded** | $2,556,304.26 | **Dept** | 1 |
| **UnFunded** | $0.00 | **Tier** | 0 |

**87** Rehabilitate sanitary sewers and manholes to extend their useful life. Replace sewer sections that are beyond repair.

**Detailed Project Cost**

| | |
|---|---|
| Effective Date | |
| Design Development | $0 |
| Construction Related | $2,000,000 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$2,000,000** |

**Project Schedule**

| | Start | End |
|---|---|---|
| Design | | |
| Implementation | 12/3/2012 | 6/30/2020 |

Project Location

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost -

Estimated change in annual operating cost to the city: $0

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☑ Life Safety
- ☑ Continues On-Going Project
- ☐ Leverages Other Funds
- ☑ Infrastructure
- ☑ Quality of Life
- ☐ Plan Related
- ☑ Public Safety Health
- ☑ Mandated Legal
- ☐ Positive Revenue Impact
- ☐ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 2,000,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,000,000 |
| | | **2,000,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2,000,000** |

WORK INCLUDES SANITARY SEWER AND MANHOLE LINING, JOINT SEALING AND POINT REPAIRS REQUIRED BY I/I REMOVAL PROGRAM, CCTV EQUIPMENT FOR SEWER TRUNK LINES, RECONSTRUCT SEWER AT GLENBROOK AND CRESENT, REHAB BEDFORD STREET SEWER, RECONSTRUCT SEWER AT SNOW CRYSTAL, REPLACE MANHOLE COVERS

## History

| Fiscal Year | Funding Source | Capital Budget | Additional Appropriations | Closeouts | Total Authorized | Adopted Page Number |
|---|---|---|---|---|---|---|
| FY 15/16 | State Grant | 0.00 | 2,000,000.00 | 0.00 | 2,000,000.00 | 189 |
| FY 15/16 | Bond (WPCA) | 650,000.00 | 850,000.00 | 0.00 | 1,500,000.00 | 189 |
| FY 12/13 | Bond (WPCA) | 0.00 | 2,000,000.00 | 0.00 | 2,000,000.00 | 105 |

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**CP5051** **SCADA SYSTEM UPGRADE**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | ($24,617.92) | **Priority** | |
| **Funded** | $0.00 | **Dept** | 2 |
| **UnFunded** | ($24,617.92) | **Tier** | 0 |

**421** Upgrade the current Supervisory Control And Data Acquisition (SCADA) system.

| Detailed Project Cost | |
|---|---|
| Effective Date | |
| Design Development | $50,000 |
| Construction Related | $0 |
| Equipment Acquisition | $100,000 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$150,000** |

| Project Schedule | Start | End |
|---|---|---|
| Design | 7/1/2014 | 12/30/2015 |
| Implementation | 4/1/2016 | 12/31/2016 |

Project Location Treatment plant

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost - Estimate sought from providers

Estimated change in annual operating cost to the city: $0

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☐ Life Safety
- ☐ Continues On-Going Project
- ☐ Leverages Other Funds
- ☑ Infrastructure
- ☐ Quality of Life
- ☑ Plan Related
- ☐ Public Safety Health
- ☐ Mandated Legal
- ☐ Positive Revenue Impact
- ☑ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 150,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150,000 |
| | | **150,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **150,000** |

The SCADA system currently is outdated and an upgrade is warranted to better control and track the treatment processes.

## History

| | | FY 16/17 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 17/18** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **Total** |
| Bond (WPCA) | 20 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 0 | 0 | 0 | 0 | 0 | 0 | 100,000 |
| | | **100,000** | **100,000** | **100,000** | **100,000** | **100,000** | **0** | **0** | **0** | **0** | **0** | **0** | **100,000** |

| Fiscal Year | Funding Source | Capital Budget | Additional Appropriations | Closeouts | Total Authorized | Adopted Page Number |
|---|---|---|---|---|---|---|
| FY 16/17 | Bond (WPCA) | 100,000.00 | 0.00 | 0.00 | 100,000.00 | 161 |
| FY 15/16 | Bond (WPCA) | 320,000.00 | 0.00 | 0.00 | 320,000.00 | 192 |
| FY 14/15 | Bond (WPCA) | 750,000.00 | 0.00 | 0.00 | 750,000.00 | 180 |

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**CP6904** **WPCA MAJOR REPLACEMENT**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | $5,432,516.94 | **Priority** | |
| **Funded** | $3,045,340.21 | **Dept** | 3 |
| **UnFunded** | $2,387,176.73 | **Tier** | 0 |

**119** This account is used for major repairs of process tanks and equipment associated with the treatment of wastewater including pumps, clarifiers, solids handling equipment, etc.

**Detailed Project Cost**

| | |
|---|---|
| Effective Date | |
| Design Development | $0 |
| Construction Related | $600,000 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$600,000** |

**Project Schedule**

| | Start | End |
|---|---|---|
| Design | | |
| Implementation | 7/1/2012 | 6/30/2020 |

Project Location WASTEWATER TREATMENT PLANT

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost -

Estimated change in annual operating cost to the city: $0

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☑ Life Safety
- ☑ Continues On-Going Project
- ☐ Leverages Other Funds
- ☑ Infrastructure
- ☐ Quality of Life
- ☑ Plan Related
- ☑ Public Safety Health
- ☑ Mandated Legal
- ☐ Positive Revenue Impact
- ☑ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 600,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 600,000 |
| | | **600,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **600,000** |

CONCRETE REPAIRS AT PLANT SITE, MISC WPCF EQUIPMENT REPLACEMENTS, # 1 PRIMARY CLARIFIER REHAB, # 3 SEC CLARIFIER SCUM ARM RETRO-FIT & LAUNDER COVERS, REPLACE RAS SLUICE GATES AND WML VALVES,
UPGRADE SLUDGE DEGRITTING SYSTEM

## History

| Fiscal Year | Funding Source | Capital Budget | Additional Appropriations | Closeouts | Total Authorized | Adopted Page Number |
|---|---|---|---|---|---|---|
| FY 15/16 | Bond (WPCA) | 950,000.00 | 2,050,000.00 | 0.00 | 3,000,000.00 | 187 |
| FY 12/13 | Bond (WPCA) | 0.00 | 2,000,000.00 | 0.00 | 2,000,000.00 | 106 |

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**CP6599** **Dyke Lane Pump Station Upgrade**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | $2,623,539.64 | **Priority** | |
| **Funded** | $2,636,000.00 | **Dept** | 4 |
| **UnFunded** | ($12,460.36) | **Tier** | 0 |

**530** THE ELECTRICAL CONTROLS AND THE BUILDING IS BEING UPGRADED TO COMPLY WITH THE FIRE CODES. A STANDBY GENERATOR WILL BE INSTALLED TO POWER THE STATION DURING POWER OUTAGES.

**Detailed Project Cost**

| | |
|---|---|
| Effective Date | |
| Design Development | $0 |
| Construction Related | $300,000 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$300,000** |

**Project Schedule**

| | Start | End |
|---|---|---|
| Design | | |
| Implementation | | |

Project Location

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☐ No

Method Used in Estimating Cost -

Estimated change in annual operating cost to the city: $0

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☐ Life Safety
- ☐ Continues On-Going Project
- ☐ Leverages Other Funds
- ☐ Infrastructure
- ☐ Quality of Life
- ☐ Plan Related
- ☐ Public Safety Health
- ☐ Mandated Legal
- ☐ Positive Revenue Impact
- ☐ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 150,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150,000 |
| | | **150,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **150,000** |

**History**

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**CP9270** **SANITARY PUMPING STATION UPGRADE**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | $1,469,282.89 | **Priority** | |
| **Funded** | $1,469,282.89 | **Dept** | 5 |
| **UnFunded** | $0.00 | **Tier** | 0 |

**184** To upgrade pumping stations to replace aged equipment, improve operation and maintenance and ensure reliability.

**Detailed Project Cost**

| | |
|---|---|
| Effective Date | |
| Design Development | $0 |
| Construction Related | $1,000,000 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$1,000,000** |

**Project Schedule**

| | Start | End |
|---|---|---|
| Design | | |
| Implementation | | |

Project Location VARIOUS LOCATIONS

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost -

Estimated change in annual operating cost to the city: $0

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☑ Life Safety
- ☑ Continues On-Going Project
- ☐ Leverages Other Funds
- ☑ Infrastructure
- ☑ Quality of Life
- ☑ Plan Related
- ☐ Public Safety Health
- ☑ Mandated Legal
- ☐ Positive Revenue Impact
- ☐ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 1,000,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000,000 |
| | | **1,000,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1,000,000** |

UPGRADE ALVORD LANE PUMP STATION AND REPLACE EMERGENCY POWER GENERATOR AT GREENWICH AVE PUMP STATION AND ARC FLASH RELATED ELECTRICAL PANEL UP GRADE.

## History

| Fiscal Year | Funding Source | Capital Budget | Additional Appropriations | Closeouts | Total Authorized | Adopted Page Number |
|---|---|---|---|---|---|---|
| FY 15/16 | Bond (WPCA) | 750,000.00 | 225,000.00 | 0.00 | 975,000.00 | 188 |
| FY 14/15 | Bond (WPCA) | 150,000.00 | 0.00 | 0.00 | 150,000.00 | 183 |
| FY 13/14 | Bond (WPCA) | 100,000.00 | 0.00 | 0.00 | 100,000.00 | 158 |

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**C71201** **UPGRADE OF ULTRA-VIOLET DISINFECTION SYSTEM**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | $1,017,307.75 | **Priority** | |
| **Funded** | $1,017,307.75 | **Dept** | 6 |
| **UnFunded** | $0.00 | **Tier** | 0 |

**75** ULTRA-VIOLET DISINFECTING IS USED TO DISINFECT TREATED WASTEWATER PRIOR TO DISCHARGING TO LONG ISLAND SOUND. THE EXISTING SYSTEM HAS NO BUILT IN REDUNDENCY AS REQUIRED BY CONN. DEPT. OF ENERGY AND ENVIRONMENT PROTECTION REGULATIONS.

**Detailed Project Cost**

| | |
|---|---|
| Effective Date | |
| Design Development | $0 |
| Construction Related | $4,600,000 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$4,600,000** |

**Project Schedule**

| | Start | End |
|---|---|---|
| Design | 1/2/2017 | 12/29/2017 |
| Implementation | 1/7/2018 | 12/31/2019 |

Project Location WASTEWATER TREATMENT PLANT

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost -

Estimated change in annual operating cost to the city: $0

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☐ Life Safety
- ☐ Continues On-Going Project
- ☐ Leverages Other Funds
- ☑ Infrastructure
- ☑ Quality of Life
- ☐ Plan Related
- ☐ Public Safety Health
- ☑ Mandated Legal
- ☐ Positive Revenue Impact
- ☐ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 4,600,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,600,000 |
| | | **4,600,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **4,600,000** |

THE UV SYSTEM HAVE TO BE UPGRADED DUE TO MORE STRINGENT EFFLUENT DISCHARGE LIMITS AS MANDATED BY CT-DEEP

**History**

| Fiscal Year | Funding Source | Capital Budget | Additional Appropriations | Closeouts | Total Authorized | Adopted Page Number |
|---|---|---|---|---|---|---|
| FY 13/14 | Bond (WPCA) | 1,000,000.00 | 0.00 | 0.00 | 1,000,000.00 | 154 |
| FY 12/13 | Bond (WPCA) | 50,000.00 | 0.00 | 0.00 | 50,000.00 | 103 |

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**CP5147** **UPGRADE PLANT HEADWORKS**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | $10,200,000.00 | **Priority** | |
| **Funded** | $10,200,000.00 | **Dept** | 7 |
| **UnFunded** | $0.00 | **Tier** | 0 |

**422** Ugrade of the Raw Sewage Pump Station at the WPCF including screenings removal, raw sewage pumping and septage receiving

**Detailed Project Cost**

| | |
|---|---|
| Effective Date | |
| Design Development | $0 |
| Construction Related | $660,000 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$660,000** |

**Project Schedule**

| | Start | End |
|---|---|---|
| Design | 1/1/2016 | 12/31/2016 |
| Implementation | 4/1/2017 | 12/1/2019 |

Project Location Treatment Plant

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost - Engineering evaluation

Estimated change in annual operating cost to the city: $0

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☐ Life Safety
- ☐ Continues On-Going Project
- ☐ Leverages Other Funds
- ☑ Infrastructure
- ☐ Quality of Life
- ☑ Plan Related
- ☐ Public Safety Health
- ☐ Mandated Legal
- ☐ Positive Revenue Impact
- ☑ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 660,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 660,000 |
| | | **660,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **660,000** |

Project includes:
-Replacement of existing mechanical bar screens with fine screening
-Addition of screenings washer and compactor
-Upgrade of raw sewage pumping
-Addition of a septage receiving station with septage metering, screenings removal and odor cpntrol
-Building systems (structural, architectural, electrical, H&V, and odor control systems)
-Evaluation of flow distribution to primary clarifiers

## History

| | | FY 16/17 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 17/18** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **Total** |
| Bond (WPCA) | 20 | 9,600,000 | 9,600,000 | 9,600,000 | 9,600,000 | 9,600,000 | 0 | 0 | 0 | 0 | 0 | 0 | 9,600,000 |
| | | **9,600,000** | **9,600,000** | **9,600,000** | **9,600,000** | **9,600,000** | **0** | **0** | **0** | **0** | **0** | **0** | **9,600,000** |

| Fiscal Year | Funding Source | Capital Budget | Additional Appropriations | Closeouts | Total Authorized | Adopted Page Number |
|---|---|---|---|---|---|---|
| FY 16/17 | Bond (WPCA) | 9,600,000.00 | 0.00 | 0.00 | 9,600,000.00 | 154 |
| FY 15/16 | Bond (WPCA) | 100,000.00 | 0.00 | 0.00 | 100,000.00 | 194 |

# Capital Project Request FY 2018-2024

| | | | | | | |
|---|---|---|---|---|---|---|
| FY 14/15 | Bond (WPCA) | 500,000.00 | 0.00 | 0.00 | 500,000.00 | 181 |

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**CP5025** **AERATION BLOWERS UPGRADE**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | $8,600,000.00 | **Priority** | |
| **Funded** | $8,600,000.00 | **Dept** | 8 |
| **UnFunded** | $0.00 | **Tier** | 0 |

**424** Upgrade existing aeration blowers to high efficiency blowers.

| Detailed Project Cost | |
|---|---|
| Effective Date | |
| Design Development | $0 |
| Construction Related | $1,200,000 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$1,200,000** |

| Project Schedule | Start | End |
|---|---|---|
| Design | 1/1/2016 | 12/31/2016 |
| Implementation | 4/1/2017 | 4/1/2019 |

Project Location Treatment Plant

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost - Estimates obtained

Estimated change in annual operating cost to the city: $0

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☐ Life Safety
- ☐ Continues On-Going Project
- ☐ Leverages Other Funds
- ☑ Infrastructure
- ☐ Quality of Life
- ☐ Plan Related
- ☐ Public Safety Health
- ☐ Mandated Legal
- ☐ Positive Revenue Impact
- ☑ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 1,200,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,200,000 |
| | | **1,200,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1,200,000** |

Replace the existing multistage centrifugal blowers with more energy efficient equipment and modify treatment process to reduce energy and chemical usage. Also provide for a standby generator.

## History

| | | FY 16/17 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 17/18** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **Total** |
| Bond (WPCA) | 20 | 5,600,000 | 5,600,000 | 5,600,000 | 5,600,000 | 5,600,000 | 0 | 0 | 0 | 0 | 0 | 0 | 5,600,000 |
| Other | 0 | 800,000 | 800,000 | 800,000 | 800,000 | 800,000 | 0 | 0 | 0 | 0 | 0 | 0 | 800,000 |
| | | **6,400,000** | **6,400,000** | **6,400,000** | **6,400,000** | **6,400,000** | **0** | **0** | **0** | **0** | **0** | **0** | **6,400,000** |

| Fiscal Year | Funding Source | Capital Budget | Additional Appropriations | Closeouts | Total Authorized | Adopted Page Number |
|---|---|---|---|---|---|---|
| FY 16/17 | Other | 800,000.00 | 0.00 | 0.00 | 800,000.00 | 155 |
| FY 16/17 | Bond (WPCA) | 5,600,000.00 | 0.00 | 0.00 | 5,600,000.00 | 155 |
| FY 15/16 | Bond (WPCA) | 0.00 | 800,000.00 | 0.00 | 800,000.00 | 196 |
| FY 14/15 | Bond (WPCA) | 1,400,000.00 | 0.00 | 0.00 | 1,400,000.00 | 179 |

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**CP5241** **STORM WATER PUMP STATIONS**

| | | | |
|---|---|---|---|
| **Authorized Free Balance as of 9/30/2016** | $212,538.60 | **Priority** | |
| **Funded** | $112,538.60 | **Dept** | 9 |
| **UnFunded** | $100,000.00 | **Tier** | 0 |

**86** WPCA MAINTAINS THE STAMFORD HURRICANE BARRIER AND THE THREE ASSOCIATED PUMP STATIONS.
Upgrade and perform major repairs to Cummings Pump Station and Wampanaw pump station

**Detailed Project Cost**

| | |
|---|---|
| Effective Date | |
| Design Development | $0 |
| Construction Related | $100,000 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$100,000** |

**Project Schedule**

| | Start | End |
|---|---|---|
| Design | 7/1/2016 | 11/30/2016 |
| Implementation | 4/1/2017 | 10/30/2017 |

**Contact Info**

Chakravarti, Prakash
(203) 977-5896
pchakravarti@StamfordCT.gov

Project Location STAMFORD HURRICANE BARRIER

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost - Engineering evaluation and construction cost esto

Estimated change in annual operating cost to the city: $0

**Justification for Inclusion in Capital Plan**

- ☐ Cost Savings
- ☑ Life Safety
- ☑ Continues On-Going Project
- ☑ Leverages Other Funds
- ☑ Infrastructure
- ☐ Quality of Life
- ☐ Plan Related
- ☑ Public Safety Health
- ☑ Mandated Legal
- ☐ Positive Revenue Impact
- ☑ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (City) | 20 | 100,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100,000 |
| | | **100,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **100,000** |

THE MOTOR CONTROL PANELS AT CUMMINGS AND WAMPANAW HAVE TO BE REPLACED AND EMERGENCY POWER GENERATORS PROVIDED.

**History**

| | | FY 16/17 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 17/18** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **Total** |
| Bond (City) | 20 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 0 | 0 | 0 | 0 | 0 | 0 | 150,000 |
| | | **150,000** | **150,000** | **150,000** | **150,000** | **150,000** | **0** | **0** | **0** | **0** | **0** | **0** | **150,000** |

| Fiscal Year | Funding Source | Capital Budget | Additional Appropriations | Closeouts | Total Authorized | Adopted Page Number |
|---|---|---|---|---|---|---|
| FY 16/17 | Bond (City) | 150,000.00 | 0.00 | 0.00 | 150,000.00 | 159 |
| FY 15/16 | Bond (City) | 350,000.00 | 0.00 | -944,000.00 | -594,000.00 | 191 |
| FY 15/16 | Federal Grant | 0.00 | 0.00 | -800,000.00 | -800,000.00 | 191 |
| FY 15/16 | Bond (WPCA) | 0.00 | 0.00 | -611,883.62 | -611,883.62 | 191 |
| FY 14/15 | Bond (City) | 350,000.00 | 0.00 | 0.00 | 350,000.00 | 182 |
| FY 13/14 | Bond (City) | 384,000.00 | 0.00 | 0.00 | 384,000.00 | 155 |
| FY 13/14 | Federal Grant | 0.00 | 800,000.00 | 0.00 | 800,000.00 | 155 |

# Capital Project Request FY 2018-2024

# Capital Project Request FY 2018-2024

**0033** **Special Revenue - Water Pollution Control**

**NEW** **PRIMARY SLUDGE DE-GRITTING SYSTEM**

| Authorized Free Balance as of | | Priority | |
|---|---|---|---|
| Funded | $0.00 | Dept | 10 |
| UnFunded | | Tier | 0 |

**562** THE EXISTING DE-GRITTING SYSTEM HA STO BE REPLACED WITH A MORE EFFICIENT SYSTEM FOR SEPERATING THE GRIT FROM THE PRIMARY SLUDGE.

## Detailed Project Cost

| | |
|---|---|
| Effective Date | |
| Design Development | $4,100,000 |
| Construction Related | $0 |
| Equipment Acquisition | $0 |
| Miscellaneous Costs | $0 |
| Professional Services | $0 |
| Land Acquisition | $0 |
| **FY 17/18 Total** | **$4,100,000** |

## Project Schedule

| | Start | End |
|---|---|---|
| Design | 1/2/2017 | 9/29/2017 |
| Implementation | | |

Project Location STAMFORD WATER POLLUTION CONTROL AUTHORITY

Is this project for construction, reconstruction or remodeling of any building or facility leased by the City and open to the public? ☐ Yes ☑ No

Method Used in Estimating Cost - Past project costs

Estimated change in annual operating cost to the city: $0

## Contact Info

Chakravarti, Prakash
203 977 5896
pchakravarti@ci.stamford.ct.us

## Justification for Inclusion in Capital Plan

- ☐ Cost Savings
- ☐ Life Safety
- ☐ Continues On-Going Project
- ☐ Leverages Other Funds
- ☑ Infrastructure
- ☐ Quality of Life
- ☑ Plan Related
- ☐ Public Safety Health
- ☐ Mandated Legal
- ☐ Positive Revenue Impact
- ☑ Positive Operational Impact/Efficiency
- ☐ Other

| | | FY 17/18 | | | | | Capital Forcasts | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Funding Source** | **Term** | **Dept** | **Planning** | **Mayor** | **BOF** | **Adopted** | **FY 18/19** | **FY 19/20** | **FY 20/21** | **FY 21/22** | **FY 22/23** | **FY 23/24** | **Total** |
| Bond (WPCA) | 20 | 4,100,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,100,000 |
| | | **4,100,000** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **4,100,000** |

Comments

**History**