

Director of Engineering Report

November 20, 2013

District staff manages projects, consultants, contractors and equipment suppliers. Consultant reports and Project Managers reports are included in this section and detail the status of the associated study, design, or construction projects.

Active Projects

2013 Trestle Modifications Project: This project includes changing the structural support system of the 4 North Stevens Creek trestles.

- Final Change Order #2 is before the board for consideration.

2013 Digester Complex Improvements Project: This project consists of upgrades to the primary digesters' mixing systems with 4 Linear Motion Mixers to replace the current Pearth mixing systems; the addition of an electrical building to gain NFPA 820 code compliance in the primary digester complex; installation of automated drip traps and condensate collectors in the digester complex; and replacement of the waste gas burner to a separate location away from the digester complex.

- General Contractor: Leander Construction
- The District submitted a letter requesting consideration from Illinois Clean Energy Community Foundation (ICE) for funding grant for a portion of this project. In September, ICE accepted the letter, and invited the District to submit a full proposal for \$496,650.
 - *The ICE grant was awarded to the SDD in the amount of \$188,164; award was accepted this last period.*
- The district submitted an additional grant application to DCEO for Energy reduction in the mixing systems, requested amount was \$188,000.
 - *No update regarding this grant.*
- *Contractor is mobilized and emptying of digester #2 has begun.*

2013 Roads Rehabilitation Project: The project consists of: Rehabilitation of roads around the 7th ward CSO facility, various sections of roadway around the plant, and warranty work in Argentina.

- *Contractor: Dunn Co.*
- *Work is complete as scheduled, final T&M paperwork still to be submitted by contractor, should close this contract in December*

2012 BioMass to Energy Project: To continue with upgrading the digester complex and reducing the energy needs of the district, the district has received a 500k DECO Public Sector Biomass to Energy grant.

- *Driving this project is the desire to use the Digester methane in a manner that is beneficial to the district. If beneficial reuse is not put in place, we will continuously burn digester gas in the waste gas burner system.*
- *There is no recommendation on moving forward this month.*

2014 Odor Control Upgrades – Phase 2: The concrete underneath the “odor control covers” has experienced significant degradation since the installation. Inspection under the covers indicates a loss of 1” – 1-3/4” of surface concrete. The P2 channel, which carries all the flow through the plant into the aeration basins, is experiencing this same deterioration. It is anticipated that a parallel channel adjacent to the P2 channel will need constructed to allow coating to occur in the existing channel.

The district has been working with Clark Dietz to establish a *revised scope of work for this project*. We will attempt to fund this project through the Illinois State Revolving Loan fund which will require a Facility Plan Amendment be filed with IEPA.

Water Tower Upgrade Project: The water tower is in need of several maintenance items, most notably are the interior coating of the tank and the cathodic protection system.

- o *Advertised 11/15/13; Pre-Bid scheduled 11/26/13; Bid Open 12/12/13*

INTERGOVERNMENTAL ACTIVITIES

- None this period

Other Activities:

Facility Planning Amendment (FPA) – East Side Separation Sewer Rehab: The Eastside Separation Sewer was constructed in 1983. The intent was for it to be a dedicated sewer to transport various flows around the combined sewers within the central core of the City of Decatur. Pump station flows were routed into the East Side Separation Sewer from Eastside Booster pump station, Country Club pump station, Lost Bridge pump station, and the Damon Ave pump station. The Separator Sewer discharges into a junction structure feeding the Sanitary Districts two main interceptors on the East side of South Main Street; just west of Christy-Foltz. The projected rehabilitation method is cured-in-place lining this sewer. The FPA is done to prepare for obtaining an IEPA State Revolving Fund Loan.

- o *FPA submitted to IEPA 10/16/13 – Waiting for IEPA review.*

Structural Repairs to Buildings 009 and 217: These two buildings are in need of structural rehabilitation where concrete has experienced water damage. Written quotes indicate the repairs will require a project be put out for bid to complete the work. SDD staff is preparing the specifications.

PROPOSED BOARD ACTION

For the Board's consideration from the Engineering Department this meeting:

- 1. 2013 Trestle Modifications Project – Change Order #2 FINAL**
- 2. Professional Services Agreement – 2014 Odor Control Upgrades – Phase 2**

Further details can be found in the Summary of Motions.

If there are any questions, please contact me by telephone at 422-6931 ext 216, or by email at DonM@sdd.dst.il.us

OUTSIDE FACILITIES MONTHLY REPORT November 2013

TO: Don Miller, Director of Engineering

FROM: Paul Caswell, Asset Manager

- **Wyckles Facility**
 - Oros and Bush have started the land application of the sludge.
 - Discharge hose from dredge has reached it asset life.
 - Staff is researching replacement options.

- **2013 CCTV Project**
 - Project is out for Bid; Open Bids on 2/22/13
 - Bid unit price was higher than expected – rejecting all bids and will re-bid the work.
 - Project bid on June 6, 2013.
 - Visu Sewer/Walden is the apparent low with prices still higher than expected.
 - All bid recommended to be rejected.
 - Requested proposals to pre-televising the project.
 - Pre-televising should reduce the scope of project (due to lines that already clean) and will reduce risk of unknowns for the contractor.
 - Proposals have been received from Tele-scan, National Power Rodding, and Visu-sewer. Tele-Scan had the lowest proposal at \$1.00 per foot for all televising except Country Club which is \$1.10 per foot.
 - CCTV has been completed and is being analyzed by staff to prepare cleaning project book, project is expected to advertise in December.
 - Preliminary information indicates a cleaning scope reduction of over 50%

- **DAMON Ave**
 - Check and gate valves for the 3 pumps are near the end of their asset life.
 - Purchased one set of valves for backup due to long lead time.
 - Cost ~~ \$28,500.
 - Preparing specifications to bid installation of purchased valves plus acquisition of two more sets.
 - Total project cost ~~ \$130,000

- **1948 E Damon Ave Demolition**
 - Specifications for Demolition of the existing house and detached garage at 1948 E Damon are complete.
 - Asbestos survey has been completed and waiting for report.
 - Decatur Fire Department may be using the house for training is asbestos report is clear.
 - Asbestos report Identified in all drywall, asbestos remediation will be required by the demolition contractor.
 - Request for proposals are sent and will be received by November 18, 2013.

- **Stevens Creek Interceptor (42" section) – Exposed section of pipe**
 - There is a section of the 42" interceptor just West of Oakland Ave where the cover dirt over the interceptor has washed away due to storm water over the years (originally installed in 1953).
 - Receiving quote to repair.
 - Acquiring access easement from property owner.

- **Lake Shore Force Main (FM)**
 - District is working with ADM preparing to replace the air release valves and their isolation valves along the FM.
 - Do to condition of existing nipple taps to the FM, Staff is investigating on how to saddle the existing pipe.

- **Saint Louis Bridge Pump No 1**
 - Pump failed due to broken bearing. Pump was purchased in 1985.
 - Repair cost is \$17,000
 - New replacement pump is \$31,000.
 - Pump has been received and staff is preparing to install.

- **7th Ward Foul Sewer Pump No 1**
 - Pump No 1 has reached its asset and has a high potential of failure.
 - Replacement includes pump, base elbow and guide rails and brackets
 - Purchase price \$37,500.
 - Pump has been received and preparation has started for installation.

Sanitary District Of Decatur

501 Dipper Lane * Decatur, Illinois 62522 * 217/ 422-6931

MONTHLY ACTIVITY SUMMARY

Main Plant Facility Maintenance Division

To: Don Miller

Fr: Fred McKinney / Craig Jones

Date November 14, 2013

Work Orders:

For the month of October, these are the totals of work orders completed.

| WORK ORDER SUMMARY | Mar-13 | April-13 | May-13 | June-13 | July-13 | Aug-13 | Sept-13 | Oct-13 | | |
|----------------------------------|--------|----------|--------|---------|---------|--------|---------|--------|--|--|
| Total # Work-Orders Completed | 655 | 836 | 830 | 495 | 677 | 559 | 599 | 652 | | |
| Total # PM Work Orders Completed | 580 | 737 | 701 | 399 | 614 | 495 | 528 | 567 | | |
| COMPLETED BY TYPE | | | | | | | | | | |
| Weekly PM's | 491 | 564 | 629 | 307 | 504 | 419 | 442 | 427 | | |
| Safety PM's | 14 | 0 | 10 | 9 | 4 | 9 | 5 | 2 | | |
| 6 Month PM's | 54 | 155 | 52 | 74 | 95 | 40 | 52 | 108 | | |
| Yearly PM's | 21 | 17 | 10 | 10 | 10 | 26 | 29 | 30 | | |

Nitrification Clarifiers:

Installation of the number two nitrification clarifier scum trough has been put on hold until spring due to valve problems in the center structure.

W.A.S. room 112:

The new #8 Thickened sludge pump has arrived and has been installed and running. The #3 feed pump has arrived, installed and on line. Pumps #4 & #5 to be replaced with new Netzsch pumps, have arrived and will be installed when time permits.

D.A.F.-113 bldg:

The D.A.F. units are all being brought up to proper working order, excluding #1 unit.

Primary Clarifiers: #4, #5, #6

All work completed.

New Ammonia Building:335

The concrete has been poured by contractor. Lines have all been installed and covered and tanks are on building site. Building is being erected at this time.

Sanitary District of Decatur
501 Dipper Lane * Decatur, Illinois 62522 * 217/422-6931

MEMORANDUM

TO: Don Miller

DATE: November 14, 2013

FR: Roger Dudley

RE: 2013 Roads Rehabilitation

Notice of Award was issued on September 19, 2013.

Notice to Proceed issued on September 27, 2013.

The contractor began work on the project on October 6, 2013 with a completion date of November 11, 2013.

Project consists of 7" & 4" bituminous pavement, concrete work around manhole & valve boxes with the min treatment plant & A-2 surface treatment at 7th Ward CSO and main treatment plant.

Contractor completed project on October 23, 2013.

Contractor is in the process of submitting documentation for the change order and final payment.