



District Engineering manages projects, consultants, contractors, and equipment suppliers. Consultant reports and Project Managers reports are included in this section along with details regarding the status of the associated study, design, or construction projects.

ACTIVE PROJECTS

20-07 Digester Complex Improvements:

SCOPE: The Digester #3 floating cover and the face brick on all four digester tanks is being replaced.						
Contractor: Christy-Foltz			R.E. Inspector: SDD/W Gray - Donohue			
Engineer: Donohue and Associates						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion
11/17/20	12/01/20	12/22/20	02/17/21	03/18/21	03/18/21	9/22/2022 Substantial 10/22/22 Final
Submittals Reviewed: 9 complete /0 open						
Requests for Information (RFIs): 7 complete /0 open						
Owner Requests for Proposal/Change Order (RFPCO): 11 complete / 3 open						

Key Activities: This last period the digester contents removal was completed and washdown of the walls were completed. This allowed the contractor to removal all brick facia and staff to inspect the cold joint on Digester #1. There is ongoing concrete repair.

Issues: The unit cost for replacement of the access hatch will be utilized for digester #1. This unit price was negotiated in Change Order #2.

The engineering services agreement with the engineer is approaching its financial limit; staff has reviewed the proposed amendment (\$6,790) and requested additional backup from the engineer to substantiate the request.

Pending Changes:

1. WCD 01 and WCD 02: Additional Pump Down of Digester Contents: Contract documents required SDD to bring digester liquid elevation down to 593.0 and digesters have been turned over to contractor at various liquid elevations due to pump down issues. Contractor was put on time and material for the additional pumping required.
Digester 1 – 594.50; Digester 2 - 595.80; Digester 3 – 595.33; Digester 4 – 593.00
\$ 31,668.00 +
\$ T&M is ongoing
2. Digester #1 cold joint repairs. District issued Field Order to remove damaged concrete, prepare the leaking concrete seam, and install Xypex patch along the cold joint in the concrete walls. Work is being performed on a T&M basis.
\$ T&M
3. Coatings on Digester #3 will be addressed as contractor completes the installation of the cover. Contractor was directed to perform the work on a T&M basis.
\$ T&M

20-01 Lake Shore Drive PS Replacement:

SCOPE: The lift station is being reconfigured with submersible pumps.						
Contractor: Christy-Foltz			R.E. Inspector: SDD/ J Edenburn - CDI			
Engineer: Clark Dietz Engineers, Inc						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion
12/02/20	01/05/21	02/03/21	03/24/21	04/07/21	04/07/21	4/2/2022 + 30 Final
Submittals Reviewed: 84 received / 83 completed / 36 Rejected Requests for Information (RFIs): 14 submitted/14 completed Owner Requests for Proposal/Change Order (RFPCO): 1 Issued/1 Completed Change Orders: 2 completed						

Key Activities: Bypass operation is ongoing. Contractor has begun working outside of contract times daily and weekends to attempt to catch up on the project schedule. The latest construction schedule reflects the contractor expects substantial completion 54 days beyond contract date.

Issues: There are currently no construction related issues.

20-01 South Shores Sewer Rehab:

SCOPE: CIPP lining of approximately 17,700 LF of sewer, tie-in connections and approximately 700 vertical feet of cementitious manhole restoration.						
Contractor: SAK Construction			Engineer: Farnsworth Group, Inc			
Advertise	Pre-bid	Bid Open	Intent Award Final Award	Notice to Proceed	Pre-Construction	Contract Completion
12/15/20	02/02/21	03/02/21	03/17/21 05/26/21	06/21/21	06/15/21	03/18/22 Substantial 04/17/22 Final
Submittals Reviewed: 4 received / 0 outstanding Requests for Information (RFIs): none Owner Requests for Proposal/Change Order (RFPCO): none						

Key Activities: Construction is complete and punch list items are being addressed. Asphalt plants opened the week of April 11th and road restoration is well underway and all work is expected to be completed by the end of April.

Issues: No construction issues. Punch list items include homeowner driveways, finish grading and reseeding. As individual issues arise, staff is coordinating with homeowners and contractor to ensure restoration is consistent with the contract and satisfies homeowner expectations.

21-03 Effluent Pump #3 Replacement:

SCOPE: Scope of work includes the removal of existing effluent pump #3, installation of replacement pump/motor, procurement/installation of a FSI (formed suction intake) and flow modification appurtenances in the influent channel.						
Contractor: Burdick Plumbing			Engineer: SDD			
Advertise	Pre-Bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Contract Completion
12/14/21	01/07/22	02/04/22	02/16/22	03/21/22	03/21/22	05/20/22 Substantial 06/19/22 Final

Key Activities: Pump and motor have been delivered to the site. The formed suction intake is scheduled to be delivered the last week of April.

20-10 De-chlorination Facilities (Bisulfite Tanks Replacement):

SCOPE: Remove and rebuild knock out wall to facilitate removal and installation of new sodium bi-sulfite tanks. Additional tuck point repairs throughout building to be performed within project. Tank removal and installation to be performed by SDD maintenance.

Contractor: TBD

Engineer: SDD

Key Activities: The tank manufacturer submitted manufacturing drawings on 04/06/22. The submittal was returned revise and resubmit, resubmittal should be returned early next week. Delivery ETA is between 26 and 31 weeks after manufacturing drawing approval. Staff is developing a specification for fixing the knockout panel in the building.

Demolition of 1245 Koshinski Lane property

SCOPE: Entler Excavating was given notice to commence with demolition of this property this last period. Staff expects this property will be demolished beginning week of May 11, 2022.

NON-CONSTRUCTION ACTIVITY

ADMINISTRATIVE OFFICE MASTER PLANNING:

Update: <<No Update>> In the March 2022 trustee meeting, staff was directed to investigate financing options before moving forward with Requests for Proposals; that investigation is underway.

NUTRIENT PROGRAM MANAGER (NPM) ACTIVITY

The monthly status update from BV is attached. The focus for the NPM team is currently on developing the Liquid Stream for future BNR operating configurations. Keith Richard (lab) and engineering staff met with BV to review the current available lab data and establish procedures for updating the nutrient and plant flow data on an ongoing basis.

High level schedule is:

Feb/Mar –	Develop Quality Assurance Project Plan (QAPP); and Review of Publicly available data
Apr/May -	Review of Findings with SDD; and Perform Site Visit to confirm sampling locations; and Finalize sampling plan and review with IEPA
June-	Deploy samplers and begin sample collection

RFP Wet Weather Interceptor Capacity Study – Damon to Treatment Plant

Proposals were received from Burns and McDonnell, HDR Engineering, Crawford, Murphy, and Tilley (CMT) and RJN Group. Consistent with the Qualifications Based Selection (QBS) process, the RFP solicited services to develop, calibrate, and validate an interceptor sewer model that represents the Damon Ave to WWTP interceptor system response to rainfall. The firms were ranked based on the proposals submitted where criteria such as:

1. Structure of Model proposed (modeling nodes and weather stations)
2. Demonstrated Understanding of the Work
3. Service Partners
4. Level of analysis during the data gathering process
5. Proposed Project Team experience

Results of the proposal evaluation and rankings led staff to the decision to begin negotiating with Burns and McDonnell for the Interceptor Capacity Study. If terms cannot be reached with them, the QBS process would then guide us to the second ranked firm, RJN Group.

20-17 Sewer Pre-Cleaning Televising and PACP Rating

The district utilizes NASSCO PACP ratings to standardize the condition of sewer pipes. The asset management program targets an assessment every 10 years. We perform rating in advance of sewer cleaning to highlight areas where SDD needs to extend extra effort to clean the sewer prior to rating the pipe. The PACP rating is a professional service offered by Telescan here in Decatur. Telescan began televising and performing pipeline condition televising rating of the sewers this last period.

1. Stevens Creek North	22,646 LF	50% complete
2. West Mound Branch	6,361 LF	91% complete
3. Northside Interceptor	9,898 LF	100% complete

Of the work completed, there are 8 segments (manhole to manhole) that require heavy cleaning or approximately 2800 LF. Staff is coordinating with the district outside maintenance crew to complete cleaning these segments.

21-04 – Force Main Inspection

The district is preparing to inspect the condition of existing force mains. Using a proprietary Smartball technology. The “Smartball” is inserted into a live pipeline and it travels with the wastewater while collecting pipe wall data for metallic pipes and acoustic data for all pipes, which will be used to identify leaks and gas pockets at the same time.

The metallic pipe data collected is measuring changes in the magnetic fields of the pipe. The more the change in the magnetic field, the more the pipe is under stress. This stress can identify areas where cracks, pitting, wall loss, point loads, bending, pipe compression, etc... is occurring. It will not identify necessarily “what” is happening, but that something is happening. Based on the magnitude, further investigation may or may not be warranted.

This technology was utilized by SDD in 2015 to perform inspections on the Country Club and Lake Shore Drive 30” force mains. Pure Technologies has been purchased by Xylem, and SDD is looking to inspect the Finley Creek FM (16”) (5300 LF of ductile iron pipe).

Temporary By-pass Pumping to Support Valve Replacement:

Scope: Bypass pumping operation from building 259 to the head of the nitrification basin (230).

Pre bid walk down of job on 04/06/2022. Bids due on 04/15/2022.

UPCOMING PROJECTS:

Replacement of Sludge Transfer Pump: The agreement for engineering services was executed with Farnsworth Group for this project this last period (\$18,500). Staff and F-W performed a facility walk through this last period and plan sheets for use in bidding out the new pump installation is being prepared. Staff anticipates an owner procurement of the pump and issuing an installation only construction document.



DIRECTOR OF ENGINEERING REPORT

Apr 20, 2022

STUDY: East Headworks Grit Flow Modeling – Clemson Engineering Hydraulics

The district experiences imbalanced grit loading through the Headworks (structure 201). This project is to build a scale model of flow/grit through structure 201. Staff has received photos of the constructed model and is planning a conference call with Clemson Engineering to confirm operation methods of the structure gates. The hydraulic modeling and subsequent report will be completed thereafter.

22ENG45 - Primary Clarifier #5 Replacement

Primary Clarifier #5 is needing replaced. Staff has received budgetary quotes for the mechanisms and is preparing bidding documents for replacement and installation of the clarifier mechanism.

INTERGOVERNMENTAL ACTIVITIES

None

If there are any questions, please contact me by telephone at 422-6931 ext 216, or by email at DonM@sddcleanwater.org.



Memorandum

Date: April 13, 2022
To: Donald B. Miller, P.E., Director of Engineering
From: Will Gray, P.E., Donohue & Associates
Re: Project Status Report
2020-07 Digester Improvements Project
Donohue Project No. 13782

Project Progress Items

- Progress meetings are being held when directed by the District.
- Change Order #3 was executed in March.
- Stewart Spreading has completed cleaning of Digester #1.
- C-F has completed brick removal at Digester #1.
- C-F is chipping away at deteriorated concrete along the cold joint of Digester #1 in preparation for repairing the joint similar to the other digesters. These repairs will be paid for as a T&M change order.
- C-F is chipping away at deteriorated concrete around the manway hatch opening for Digester #1. SDD has requested the manway hatch be replaced. Manway replacement will be paid for as a change order.
- SDD is waiting on more information from C-F on how they will replaced the damaged staircase handrail.
- New Ovivo mixer gear box has been delivered and is being stored at C-F shop.
- C-F has started site restoration work around the completed digesters: clear ground, grade and seed.

Updated: 4-13-2022	Open	Closed	Total
Submittals	0	9	9
RFI	0	7	7
Change Order Request	2	11	11
Change Orders	0	3	3

CHANGE ORDER LOG

- Change Order #1 has been executed, \$42,549.39.
- Change Order #2 has been executed, \$46,173.89.
- Change Order #3 has been executed, \$442,219.00. Add 193 days to contract.
- Gathering items for Change Order #4:
 - Digester #1 cold joint repair.
 - Digester #1 manway hatch replacement.



April 7, 2022

Mr. Donald Miller
Sanitary District of Decatur
501 S. Dipper Lane
Decatur, IL 62522

Re: Lakeshore Drive Lift Station Replacement Project
SDD Project No. 20-01
Clark Dietz Project No. D0540030
Monthly Progress Update

Dear Mr. Miller:

This letter summarizes the work of the Lakeshore Drive Lift Station construction project for the period from February 26 through March 25, 2022. This month their major activities included reviewing submittals and coordinating weekly progress meetings.

- Submittals: Christy-Foltz has sent 84 submittals, 1 was reviewed and returned during this period. Thirty-six submittals have been rejected in whole or in part. When scoping the project Clark Dietz assumed a total of 40 submittal reviews. We have been concerned that there are many submittals that the contractor has not yet sent and we have made and transmitted to the contractor a log of additional submittals that we are expecting.
- RFIs: Christy-Foltz has sent fourteen RFIs, one was reviewed and returned during this period.
- RFPs and Change Orders: We have sent one RFP for the elimination of the 20-inch forcemain, which resulted in Change Order 1. The contractor has sent two time change requests as described our March progress update letter. We prepared a review of the time extension request in a letter dated 3/8/22 and Change Order for additional materials in March.
- Pay Application: Christy-Foltz has sent eight pay applications.
- Meetings: Clark Dietz prepared agendas, lead, and prepared minutes for two construction progress meetings during this billing period, at your request.
- Schedule: Christy-Foltz has submitted six construction schedules as of the end of this billing period. The first four were rejected due to unrealistic task dates as noted in previous update letters. The most recent schedules was submitted on January 28, 2022. We requested an updated project schedule to be sent with Pay Application #7 and again with Pay Application #8. The rate of progress of construction has increased during the last several months and the Contractor is making a good effort to finish the project. However, we feel it is likely that substantial completion will be at least 60 days past the contract date of 4/2/22.
- Bypass pumping delays: though bypass pumping setup, startup, and testing was the primary cause of the delays to date this system is now installed, tested, and operational.
- Resident Project Representative: per your request we have staffed this project with an inspector during the months of August, November, and December 2021 and January and February 2022. Additionally per your request we have stopped this additional inspection and do not plan for any more inspection in the future.

The upcoming contract dates are summarized as follows:

- April 2, 2022 – Substantial Completion
- May 2, 2022 – Final Completion



In April we anticipate that the contractor will pour the internal walls of the below-grade structure as well as the equipment pads and slabs. Finishing this work will allow them to start work on piping installation in the wet well and building construction. We anticipate that Clark Dietz's time during this period will include receiving and reviewing additional shop drawings, coordinating with the contractor regarding their schedule and questions, and attending and preparing agendas and minutes for progress meetings.

Please call me at 217-373-8933 if you have any questions.

Very Truly Yours,
Clark Dietz, Inc.

Andrea W. Bretl, P.E.
Project Manager

March 30, 2022

Sanitary District of Decatur
501 Dipper Lane
Decatur, IL 62522

Attn: Don Miller, Director of Engineering

Re: 20-06 South Shores Rehab
Project Status Report

Dear Don:

We are pleased to provide the following project status summary for the current project that Farnsworth Group is working on for the District. Our most recent monthly invoice for work on this current project is attached for your consideration.

1. 20-06 South Shores Sewer Rehab (L17-5456):

A. Construction Progress:

- Cured-in-place lining installation is completed for entire project.
- Bypass piping has been removed from entire project. Piping is still located on site and in process of being transported from site.
- Cleaning and televising work is completed for entire project.
- Lateral lining is complete for entire project.
- Manhole rehabilitation work is complete for entire project.
- Temporary Access easements have been rough graded and are in process of completing final grading and seeding, communication with homeowners is ongoing.
- Driveway cuts from bypass are in process of being prepared for final restoration. Per City of Decatur, asphalt is to be used for patching. Final pavement patching will be complete once HMA plants are operational.
- Substantial Completion inspection has been completed. Final Completion is set for April 17, 2022.

B. Construction administration is ongoing with Contractor Pay Application review.

- RFI's: 8 RFI's received via email; 8 RFI's reviewed and returned via email to date
- Change Orders: None received to date
- Shop Drawings: 7 submittals received; 7 submittals reviewed and returned to date
- Contractor Pay Applications: Pay Application #8 has been executed and paid.
- Additional Construction Observation provided this month: Substantial Completion walkthrough inspection.

Sanitary District of Decatur

April 4, 2022

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- C. As of this Project Invoice #17 (Invoice No. 231714), we have billed \$179,865.80 to date on the project scope which is 87% of the total estimated fee of \$207,800. The additional construction observation services billed to date of \$6,271.59 have been provided separately from the Base scope on an as needed basis.

If you have any questions or need any additional information regarding the status of this project, please feel free to contact me any time. Thanks.

Sincerely,

FARNSWORTH GROUP, INC.

Kevin N. Hannel, PE
Sr. Engineering Manager



April 5, 2022

Sanitary District of Decatur (SDD)
501 Dipper Lane
Decatur, IL 62522

Nutrient Program Manager
BV Project No. 411502

Attention: Don Miller, P.E., Director of Engineering

Subject: SDD Nutrient Program Management
March Monthly Progress Update (March 8, 2022 – April 4, 2022)

Dear Mr. Miller:

This letter summarizes the work associated to the SDD Nutrient Program Management project for services from March 8, 2022 through April 4, 2022.

1. Program Management, Administration, and Coordination
 - Conducted bi-weekly program conference calls to update progress and discuss key issues.
 - Provided Monthly Project Update
 - Provided ongoing management of the project including program management, preparation/monitoring of the program schedule and budget as well as program administrative duties.
 - Completed the semi-annual Feasibility Progress Report pursuant to Special Condition 20 of the facility's NPDES permit.
2. Pretreatment Program Update
 - Initiated data evaluation in parallel to the WWRF Upgrade Plan SDD data request.
3. Phosphorus Discharge and Optimization Plan (PDOP)
 - Completed Annual PDOP progress report pursuant to Special Condition 21 of the facility's NPDES permit.
 - BV began the evaluation of Optimization Measures including both influent and effluent reduction measures.
4. Watershed Support Services
 - Conducted bi-weekly progress update meetings
 - Completed Semi-Annual NARP Progress report for inclusion with SDD NPDES permit reporting requirement
 - Geosyntec completed the following items:
 - i. Conducted data review/analysis of additional FOIA request
 1. Cataloged the additional data
 2. Incorporated additional data into analysis
 - ii. Began the development of the baseline data collection plan

- iii. Continued the development of the Quality Assurance Project Plan (QAPP)
 - Continued initial planning and outline for the Watershed Group formation development
5. WRRF Upgrade Plan
- Prepared for and Conducted Workshop #1: Kickoff / Team Chartering Workshop which included:
 - i. Team Chartering establishing project goals and objectives, data management, as well as current and future drivers for the program.
 - ii. Process brainstorming allowed for the team to discuss current influent flows and characteristics in addition to brainstorming ideas for carbon limited BNR facilities.
 - iii. The BV team led discussions on process configuration review, impacts to liquid/solids streams and technologies
 - iv. Completed a facility tour / site visit
 - Continued data evaluation
 - Began Technical Memorandum 1 which will include a summary of current conditions with industrial influent characterization and future drivers for WWRf upgrades.
 - Continued additional data review to identify a range of technologies that are applicable for modifying the activated sludge process for nutrient removal as well as begin to define key drives and needs for the overall facility.
6. Pilot and Demonstration Testing (if needed)
- No services were performed this period

Please feel free to contact me with any questions, comments or if you need additional information.

Sincerely,



Diane Grossenheider, P.E.
Project Manager, Black & Veatch

Enclosure(s):

- SDD Nutrient Program Manager Schedule (Year 1)
- Anticipated Cost Forecast