



**DIRECTOR OF ENGINEERING REPORT**

**May 20, 2020**

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**

**SEWER CLEANING Project:**

SCOPE: This year’s cleaning contract includes approximately 12,000 LF of various sized sewer segments. Included in the work is the “twin box structure” East of the 7 <sup>th</sup> Ward Sewer.						
Contractor: TBD		Engineer: SDD				
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Scheduled Completion
03/23/20	03/31/20	04/30/20	xx/xx/20	xx/xx/20	xx/xx/20	120 days xx/xx/20
Submittals Reviewed: Requests for Information (RFIs): Owner Requests for Proposal/Change Order (RFPCO):						

- **Key Activities:** Bid opening occurred as scheduled on 04/30/20. There were three plan holders of which only one submitted a bid. Overall, the District budgeted \$150,000 for sewer cleaning work in the 2020FY. The bid received from National Power Rodding, who has performed sewer cleaning work for SDD in the past, was in the amount of \$419,361. Staff is recommending the rejection of all bids, adjusting the scope of work to be solicited, and re-bid.

Included in the cleaning project were sections of sewers identified in the most recent Pre-cleaning CCTV contract, various sewers which had high O&M scores on previous cleaning projects, and the 1028LF monolithic box structure just East of the 7<sup>th</sup> Ward CSO facility. The only sewers included from prior years were ones where it has been 6 years or longer since the SDD has cleaned the trouble areas. These trouble areas would be sewer segments in which the district expects some level of additional heavy cleaning be required. The monolithic structure was not budgeted. Shortly before bids were advertised, staff was made aware of excessive grit build up in this portion of the system. The sewer had grit levels consuming 50% of the sewer capacity, so this section was included in the cleaning. This was consistent with heavy grit loads the WWTP had been seeing in recent rain events.

Adding this structure to the bid ultimately increased the bid received by 180k. During bidding, heavy rains were experienced and the heavier grit loads into the WWTP seem to be diminishing. A recheck of the 60” sewer grit levels showed they had dropped to an average of about 6” (down from 18”) which is approximately 10% of sewer capacity, indicating this work should be removed all together from the cleaning project.



**DIRECTOR OF ENGINEERING REPORT**

**May 20, 2020**

**WYCKLES UPGRADES Project:**

SCOPE: This project addresses the replacement of valves and appurtenances at 6 sludge inlets to the lagoons at the Wyckles facility along with site grading to address stormwater runoff on the NW corner of the westernmost lagoon.						
Contractor: The BURDICK COMPANY Engineer: SDD						
Advertise	Pre-bid	Bid Open	Final Award	Notice to Proceed	Pre-Construction	Scheduled Completion
08/23/19	08/27/18	09/13/18	09/18/19	01/06/20	12/20/20	60 days 03/06/20
Submittals Reviewed: 2 shop drawings submitted /2 complete Requests for Information (RFIs): 1 received /1 answered Owner Requests for Proposal/Change Order (RFPCO): 0 issued /0 outstanding						

- **Key Activities:** Work has been completed. Waiting for contractor to submit final change order paperwork.
- **Future Change Items:**
  - 1-01 FO-01 – Install an additional 3” yard hydrant on East Lagoon Ramp. (T&M) + TBD

**NON-CONSTRUCTION ACTIVITY**

**ADMINISTRATIVE OFFICE MASTER PLANNING:**

<<No Update>>: Architectural Expressions (AEX) has provided a third revision of the Phase 2 report this last period. Review is pending on it.

Phase 3 (\$10,000) of this facility assessment will follow trustee review of Ph 2 and concurrence to proceed. Phase 3 is to perform a pre-design level study ranging from modifications and upgrades to the existing facilities to the possibility of a new facility, based on the space needs that were identified in Phase 2. The study includes a high-level cost opinion that provides context for the findings from Phase 1 and 2. A review of the existing lab space as a standalone structure is also included in Phase 3.

**ARC FLASH STUDY**

<<No Update>>: Bodine is performing field measurements and field data gathering necessary to complete the study.

Industrial Technology Group (ITG) from Champaign, IL was awarded a professional services agreement on 01/22/2020 to update the main treatment plant ARC FLASH STUDY.

**May 20, 2020**

---

**RAS Pump Station Valve Replacement**

Update: Draw down test of the West portion of the RAS pump was completed. Staff is coordinating with contractor to have remaining supplies on site and will finalize replacement date once Tim Gordon returns from vacation.

**Primary Clarifier 01 Concrete Repairs**

Update: Work has been completed. Contractor is waiting for concrete breaks to confirm strength is reached. Upon confirmation, clarifier will be put back into service.



**DESIGN Lake Shore Pump Station Rebuild:**

Lake Shore pump station was originally built in 1953, modified in 1976, and subsequently modified again in August 2000 when ADM installed a force main to bypass the flow around the pump station. The original design of the pump station was for the 4 shaft driven pumps with the drive motors upstairs and the pumps 2 stories below. Staff has modified the pumps to be dry pit submersible style pumps to improve the reliability of the pumps, however access to the lower level is restricted and the pipe gallery is undersized and is a very difficult environment to perform any maintenance. Access to the wet-well is through a side entry door which requires a confined space entry and houses valves that are difficult to access. This pump station is scheduled for rebuild.

All 5 engineering firms submitted proposals as requested on 4/1/2020. Proposals were scored and summary results have been reviewed with the design selection team. The top-ranking firms in score order was:

1. Clark Dietz Engineers, Champaign IL
2. Donohue and Associates, Champaign IL
3. Crawford Murphy and Tilly Engineers, Springfield IL

These firms have each performed successful designs for the Sanitary District in the recent past with Clark Dietz having designed the Hickory Point Pump Station. The firms were told no second level evaluation would occur and that the decision on who to first negotiate a contract with would be made from the proposals submitted.

Should those negotiations fail to provide a satisfactory agreement, the next step would be to enter negotiations with the second most qualified firm. If negotiations with the second most qualified firm also fail, then the SDD would proceed into negotiations with the third most qualified.

Staff is initiating contract negotiations with Clark Dietz and expect a professional services agreement be prepared for board consideration next trustee meeting.



## DIRECTOR OF ENGINEERING REPORT

May 20, 2020

---

### **UPCOMING PROJECTS:**

**Primary Sludge Line Replacement:** This month Engineering prepared documents for the replacement of approximately 400 LF of 8" ductile iron primary sludge force main. The invert of the pipe has eroded away and needs replaced. A mandatory pre-quote meeting was held on 05/14/20. There were 6 contractors present for the meeting. Quotes for this repair work are scheduled to be opened on 05/19/20 at 10:00am. An update on cost of the repairs will be provided during the trustee meeting.

**South Shores Interceptor Lining:** Update: SDD has IEPA approved Facility Plans for this lining work. To participate in revolving loan funding through IEPA, staff is required to submit a "Funding Nomination Form (FNF)" for the work; after which IEPA will priority rank the project for funding. Staff submitted the FNF this month. The access to this interceptor is complex due to the interceptor location (proximity to Lake Decatur and inaccessibility of manholes). Staff began developing a scope of work document for professional services that will be required for this project.

**Sodium Bisulfite Tank Replacement:** <<No Update>> Development of project plans to replace the two sodium bisulfite tanks is ongoing.

**North Stormwater Drainage:** <<No Update>> Staff began preparing documents this last period for the purpose of bidding work to re-establish drainage on the North side of the treatment plant. Over time, grades have silted in requiring drainage ditches to be regraded to eliminate ponding water inside the treatment plant.

---

### **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](mailto:DonM@sddcleanwater.org).



# Memorandum

Date: May 13, 2020

To: Donald B. Miller, P.E., Director of Engineering

From: Terry Boyer, P.E.

Re: Project Status Report  
West Headworks Improvements Project  
Donohue Project No. 13384

---

## West Headworks Improvements Project

The project Substantial Completion certificate was issued on March 18, 2020. Donohue has completed the project Record Drawings and transmitted them to the District. Donohue has collated a digital record of the constructed related documents such as shop drawings, RFI's, etc and has submitted this to the District. Donohue has completed the loan closeout documentation required by IEPA and has sent these documents to IEPA Financial section. Unless the IEPA requires any additional information, we consider that Donohue's services have been completed for this project.

Thank you for the opportunity to serve and partner with the District on this project!

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

**MEMORANDUM**

**TO:** Don Miller

**DATE:** May 13, 2020

**FR:** Roger Dudley

**RE:** North Drainage Maintenance

• Scope of work:

• Remove overgrowth along drainage ditch at the north end of the main treatment plant along the north berm that drains stormwater runoff to Stevens Creek, regrade existing ditch line & construct road for future maintenance that can be performed by District personnel.

• Specifications are being prepared for this project are estimated to be approximately 75% complete.

• No activity on this project this month.

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

**MEMORANDUM**

**TO:** Don Miller

**DATE:** May 13, 2020

**FR:** Roger Dudley

**RE:** RAS Pump Station Valve Replacement – Bldg. 259

- Quotes were opened on February 14, 2020 @ 1:30 PM.
  - E.L. Pruitt.....Decatur, IL.....\$10,820.00
  - Petersburg.....Springfield, IL.....\$14,836.00
  - Burdick P&H.....Decatur, IL..... \$12,326.00
- Insurance Certificate has been submitted and approved.
- E.L. Pruitt foreman has visited the project site.
- Project is scheduled to begin after Memorial Day, weather dependent.

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

**MEMORANDUM**

**TO:** Don Miller

**DATE:** April 16, 2020

**FR:** Roger Dudley

**RE:** Clarifier #1 Concrete Repair

- Contractor – GRS General Contractors
- Contract amount - \$23,120.00
- Scope of work:
  - Repair deteriorated concrete & seal vertical cracking along the outside wall of the clarifier launderer.
- Vector Construction (subcontractor) has completed sealing the vertical cracks.
- GRS has completed the wall repair.
- Awaiting concrete break test results to determine hardness before removal of shoring.
- Project is 95% complete.



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

**MEMORANDUM**

**TO:** Don Miller

**DATE:** May 13, 2020

**FR:** Roger Dudley

**RE:** Wyckles Facility Upgrades

- Contractor – Burdick Plumbing & Heating – Decatur, IL
- Project is 100% complete.
- Additional fire hydrant has been added to the contract to facilitate the washing/cleaning of the unloading ramp located at the northwest corner of the east lagoon.
- Awaiting final change order for approval.

# SANITARY DISTRICT OF DECATUR

501 Dipper Lane Decatur, IL (217) 422-6931

## MEMORANDUM

TO: Kent Newton

FROM: J. D. Malone

DATE: 5/13/2020

SUBJECT: Maintenance Monthly Activity Report for April 2020

### **Overall**

We have been working through the challenges presented by balancing required maintenance activities and social distancing during the Covid-19 pandemic. The maintenance group continues to work with split crews with one crew working in the plant and the other crew working from home. We have utilized the time that crews are working remotely to review safety issues in areas / buildings and review job safety analysis (JSA) sheets. Personnel that has not yet completed the maintenance training program are also utilizing this time to study the training materials and are taking tests during the weeks that they are working in the plant. I want to thank the maintenance group for all their hard work to maintain / start up critical processes.

Matthew McCauley and Mike Davis have begun their work in the plant as summer help to maintain the grounds. Both were able to start earlier than normal and have been great help keeping the grounds mowed. Maintenance laborers / laborers in training have also been helping as much as possible to keep the plant mowed.

I reviewed and cleaned up the list of items we purchase with our REQLOGIX software. I removed all duplicate entries and formatted others for consistency. We started with over 19000 items and ended up with 11070 items total.

### **Work Orders Completed, Total of 887**

55 Corrective

1 Improvement / New

798 PM

6 Process

2 Project

1 Safety

0 Training / Meeting

1 Asset Management

23 Proactive Work / Issues found during a PM

# SANITARY DISTRICT OF DECATUR

501 Dipper Lane Decatur, IL (217) 422-6931

## MEMORANDUM

### **I&C Monthly Activity**

All new equipment has been fully installed and is working well for the chemical dosing system for disinfection. I&C staff is performing a one-point calibration verification on the chlorine analyzers every weekday morning. The analyzers are tracking well.

### **Mechanical Maintenance Monthly Activity**

Installation of the auto-strainers on the chlorine analyzer sample lines was completed prior to the start of disinfection season. Prior to installation the operators would need to manually clean the strainers multiple times per shift. The auto-strainers monitor differential pressure across the filter and flush to remove debris. The units are working well to this point. A back-up bisulfite dosing line was completed and is ready for service if needed.

The rotation program for our Laborer's in-training has been put on hold due to the staffing changes for our Covid-19 response. When we get back to normal staffing levels the program will resume.

The focus of the last month has largely been on final preparation and start up of the disinfection system. We installed three new sodium hypochlorite tanks during the offseason and all the units had small leaks on start up. Two of the units required replacement of the studs for the discharge bulkhead flange. The parts were supplied by the vendor under warranty and will be replaced by in our house staff.

We have received resumes to fill the groundskeeper position and will begin the interview process as soon as possible.

### **M.I.S. Department Monthly Update**

- Network Administration, Helpdesk, Troubleshooting and Repair
  - Ongoing network administration.
  - Setup of remote help desk for SDD employees
  - Rebuild of SDD Training room

# SANITARY DISTRICT OF DECATUR

501 Dipper Lane Decatur, IL (217) 422-6931

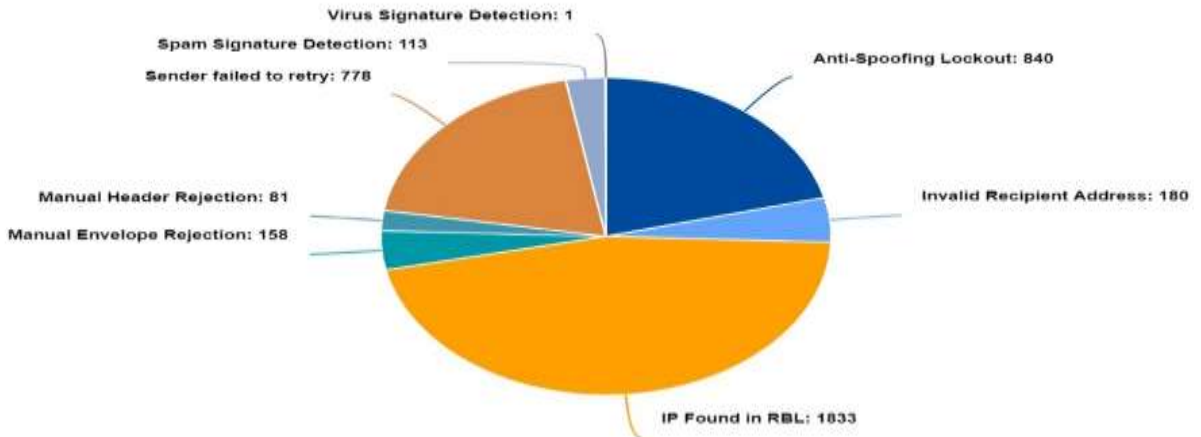
## MEMORANDUM

### Mimecast Email Security

**Email Volume Vs Rejected Mail**  
From 1 Apr 2020 To 30 Apr 2020  
Total Email Count : 12069 Total Rejection Count : 3984



**Rejection Overview**  
From 1 Apr 2020 To 30 Apr 2020  
Total Rejection Count: 3984



# SANITARY DISTRICT OF DECATUR

501 Dipper Lane Decatur, IL (217) 422-6931

## MEMORANDUM

### Email Statistics Report

From May - 2019 To Apr - 2020

Month-Year	Total Inbound email	Rejections (includes viruses & spam)	Legit Inbound Email	% Rejections	Total Outbound email	Total Internal email
May - 2019	3,984	1,554	2,430	39.01 %	867	2,967
June - 2019	6,453	3,182	3,271	49.31 %	1,373	4,314
July - 2019	8,068	4,514	3,554	55.95 %	1,325	4,865
Aug - 2019	9,209	5,540	3,669	60.16 %	1,352	4,952
Sep - 2019	19,087	15,377	3,710	80.56 %	1,214	4,273
Oct - 2019	17,123	13,201	3,922	77.10 %	1,212	5,319
Nov - 2019	8,292	5,050	3,242	60.90 %	1,158	4,563
Dec - 2019	7,676	4,476	3,200	58.31 %	906	5,465
Jan - 2020	6,604	3,281	3,323	49.68 %	1,207	5,632
Feb - 2020	8,553	4,772	3,781	55.79 %	1,362	5,089
Mar - 2020	8,176	3,422	4,754	41.85 %	1,849	6,204
Apr - 2020	7,971	3,984	3,987	49.98 %	1,295	6,787
<b>Total</b>	<b>111,196</b>	<b>68,353</b>	<b>42,843</b>		<b>15,140</b>	<b>60,430</b>
<b>Mean</b>	<b>9,266.33</b>	<b>5,696.08</b>	<b>3,570.25</b>	<b>56.55 %</b>	<b>1,261.67</b>	<b>5,035.83</b>

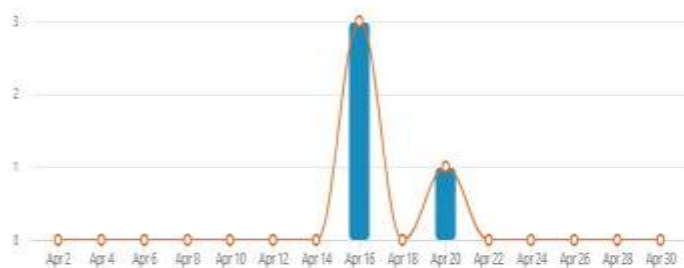
## Vipre Endpoint Security

### Threat Summary Report

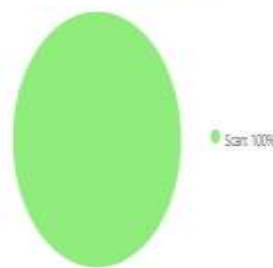
Export CSV

From: Apr 1, 2020 9:38 AM to: Apr 30, 2020 9:38 AM

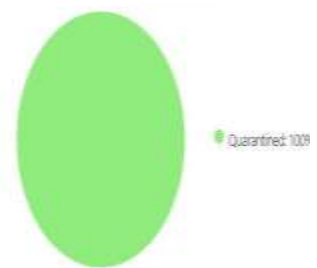
#### INSTANCE VS. DEVICES



#### DETECTION SOURCES



#### ACTIONS TAKEN



#### TOP 10 DEVICES



#### SEVERITY BREAKDOWN



#### TOP 10 THREATS



TIME	NAME	SOURCE	SEVERITY	DEVICE	POLICY	ACTION TAKEN
Apr 20, 2020 8:59 AM	GenVariant:Wiley.103696	Scan	Severe	HP5DD-33	Workstations	Quarantined
Apr 16, 2020 12:03 PM	Trojan:GeneticID.42994438	Scan	Severe	KENTV-HP	Workstations	Quarantined
Apr 16, 2020 12:02 PM	Trojan:GeneticID.42994438	Scan	Severe	HP-FrontDesk	Workstations	Quarantined
Apr 16, 2020 12:01 PM	Trojan:GeneticID.42994438	Scan	Severe	HP-RogerD	Workstations	Quarantined

# SANITARY DISTRICT OF DECATUR

501 Dipper Lane Decatur, IL (217) 422-6931

## MEMORANDUM

### **Systems Integrator Monthly Update**

- Working on creating a new SOP for the East Headworks (review for control changes)
- Completed programming for the new flow metering equipment at chlorine and ammonia buildings along with the automatic operation of the inline chlorine analyzers
- Auditing the SCADA map for all 52 PLC's in plant
- Auditing 10,000 SCADA tags for Inside and Outside facilities
- Working on new Minor Pump Station program to utilize Micrologix 1400 and Sierra Wireless ethernet functionality
- Installed SIMS for Historian 7.0 SP6

If you have any questions or would like additional information about the maintenance department and our activities, feel free to contact me.

Thank you,

James Malone, CPMM

Phone: (217) 422-6931 (x-226)