



**DIRECTOR OF ENGINEERING REPORT**

**April 22, 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: The BURDICK COMPANY 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:** Prebid meeting was held via ZOOM web conferencing software as scheduled. The contractors were provided software to field locate sewer segments via ArcGIS online software. Bid opening is scheduled for the end of April.

**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. Site clean-up is anticipated to occur by the end of April.
- **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:**

Update: Architectural Expressions (AEX) has provided a third revision of the Phase 2 report this last period. Review is pending on it.

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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**

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.

#### **RAS Pump Station Valve Replacement**

Update: Draw down test of the West portion of the RAS pump station wet well is targeted for the first week in May. SDD is required to dewater this chamber for the contractor. The draw down is a step to ensure that isolation gates work prior to the contractor beginning.

E.L. Pruitt Co was awarded the work for changing out the valves in the RAS pump station. All valves are on site. Once draw down is successfully completed, contractor will be scheduled in to complete the change out valves. Project will be dependent on stay at home Executive Order being relaxed.

#### **Primary Clarifier 01 Concrete Repairs**

Update: Contractor has completed grout injection of the vertical cracking in the concrete and is expected to be onsite 4/20/20 to begin concrete work.

GRS General Contractors is continuing to provide shop drawings/submittals for review and approval and appears to be ready to begin setting up forms.

**Lake Shore Pump Station Rebuild:** Update: All 5 engineering firms submitted proposals as requested on 4/1/2020. Proposals are ready to be distributed to staff for evaluation and ranking.

Lake Shore pump station was originally built in 1953, modified in 1976, and subsequently modified again in August 2000 when a force main was installed by ADM 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.

#### **UPCOMING PROJECTS:**

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

**South Shores Interceptor Lining:** <<No 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



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April 22, 2020

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Nomination Form (FNF)" for the work; after which IEPA will priority rank the project for funding. Staff submitted the FNF this month. Staff is considering the need to prepare a Request for Proposals for firms to provide engineering services for the South Shores Interceptor Lining project. The access to this interceptor is complex due to the interceptor location (proximity to Lake Decatur and inaccessibility of manholes).

**North Stormwater Drainage:** 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.

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### **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: April 1, 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

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## West Headworks Improvements Project

The Contractor has submitted 208 submittals, 50 RFI's, and 19 pay applications. Donohue has issued 31 requests for proposal for change order to the Contractor. Change Order #004 was executed last month. Progress meetings are no longer being held. Partial Substantial Completion for System 6: Odorous Air Equipment was issued on March 18, 2020. The project Substantial Completion certificate was subsequently issued on March 18, 2020. The project is ready for Final Payment.

Plocher Construction has three outstanding items that will be completed during the Contractor Warranty period. Those items being:

1. Touch-up site grading along the east side of Structure 003.
2. Obtain Structure 003 Roof Warranty Certificate from The Garland Company and provide to the District.
3. Correct oil leak on Grit Pump #4.

Updated: 4-1-2020	Open	Closed	Total
Submittals	0	208	208
RFI	0	50	50
Change Order Request	0	31	31
Change Orders	0	4	4

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

**MEMORANDUM**

**TO:** Don Miller

**DATE:** April 17, 2020

**FR:** Roger Dudley

**RE:** Wyckles Facility Upgrades

- Contractor – Burdick Plumbing & Heating – Decatur, IL
- Project is complete with final grading, seeding and final payment remaining to closeout project.
- 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.
- Anticipated closeout of project – end of April, weather permitting.

**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.
- Insurance certificate has been submitted and approved.
- Five (5) submittals with three (3) approvals.
- Vector Construction (subcontractor) has completed sealing the vertical cracks.

**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:** 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.

# SANITARY DISTRICT OF DECATUR

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

## MEMORANDUM

TO: Kent Newton

FROM: J. D. Malone

DATE: 4/14/2020

SUBJECT: Maintenance Monthly Activity Report for March 2020

### **Overall**

The second of our replacement trucks was received 4/2/2020. The truck was outfitted with a toolbox, nerf bars, toolbox side steps, and floor mats. This is the first Ford truck that we have purchased with the 2.7L EcoBoost engine. The vehicle was put in to service and is averaging 3 miles per gallon better than the previous truck. This vehicle is utilized by our outside pump station operator and travels over 15,000 miles per year. The improved fuel economy should result in using approximately 200 gallons less of fuel per year. The option for the EcoBoost engine cost us \$220.00 more than a traditional V8 powered truck.

We have been working through the challenges presented by balancing required maintenance activities and social distancing during the Covid-19 pandemic. The maintenance group has gone to 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.

### **Work Orders Completed, Total of 1095**

84 Corrective

5 Improvement / New

947 PM

2 Process

1 Project

9 Safety

3 Training / Meeting

1 Asset Management

43 Proactive Work / Issues found during a PM



# SANITARY DISTRICT OF DECATUR

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

## MEMORANDUM

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

Final set up and testing of all required systems for the upcoming disinfection season is nearly complete. The I&C and maintenance groups have been working together to complete all projects with limited staff. All testing will be completed, and chemical will be delivered soon to allow for final testing / disinfection start up.

The I&C shop continues to upgrade lighting and fixtures around the plant and at the pump stations.

Terry Enloe is stepping through outside pump stations to improve our electrical documentation. Documentation for field modifications that have been made over the years is missing / incomplete. Terry's work will help to properly document the current state of equipment.

### **Mechanical Maintenance Monthly Activity**

Safety hatch installation has been completed at St. Louis Bridge pump station and is nearly complete at Lincoln Park CSO Facility. Installation has been performed by our outside maintenance crew.

Repaired effluent pump #3 was installed and put in to service. Effluent pump #1 is being repaired at Bodine Electric and should be returned the week of 4/20/2020.

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.

Thank you to Mark Rotz for his service to the Sanitary District of Decatur. Mark has been with the District since October of 1992. Mark was always willing to offer a helping hand and maintained our grounds at an exceptional level. Mark's tireless work ethic and attention to detail will be greatly missed.

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 access for SDD employees
  - Evaluation of replacement EAM software
  - Ongoing SDD Network rebuild

# SANITARY DISTRICT OF DECATUR

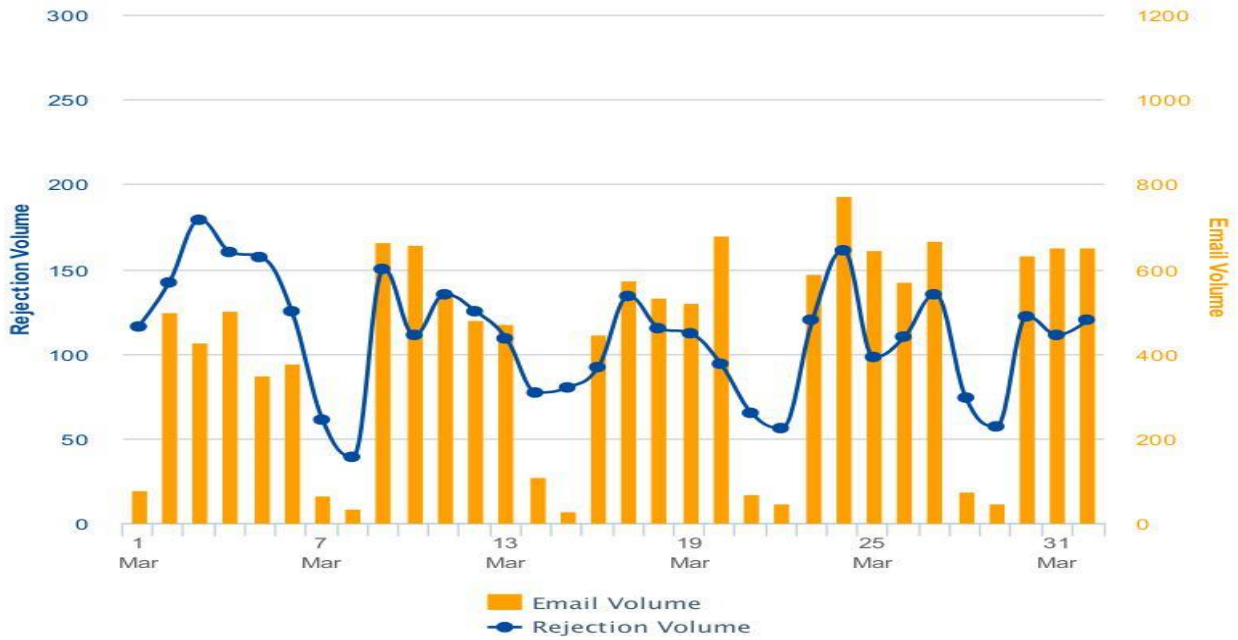
501 Dipper Lane Decatur, IL (217) 422-6931

## MEMORANDUM

### Mimecast Email Security

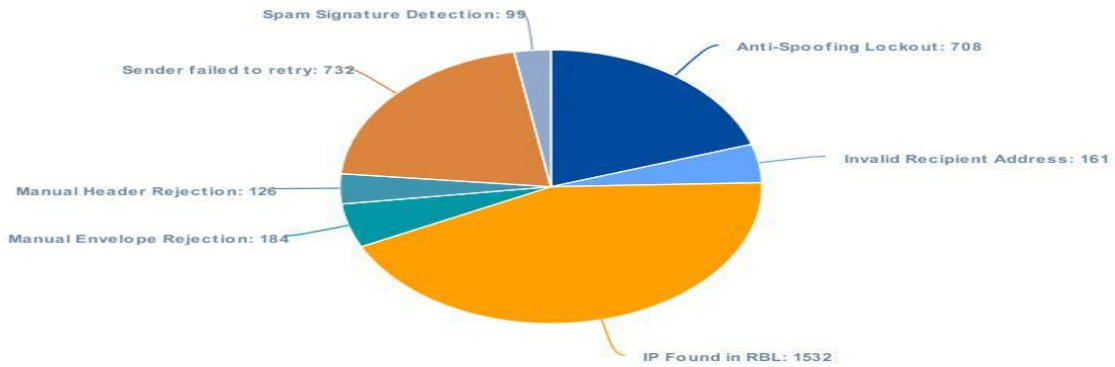
#### Email Volume Vs Rejected Mail

From 1 Mar 2020 To 1 Apr 2020  
Total Email Count : 13457 Total Rejection Count : 3542



#### Rejection Overview

From 1 Mar 2020 To 1 Apr 2020  
Total Rejection Count : 3542



# SANITARY DISTRICT OF DECATUR

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

## MEMORANDUM

### Email Statistics Report

From Apr - 2019 To Mar - 2020

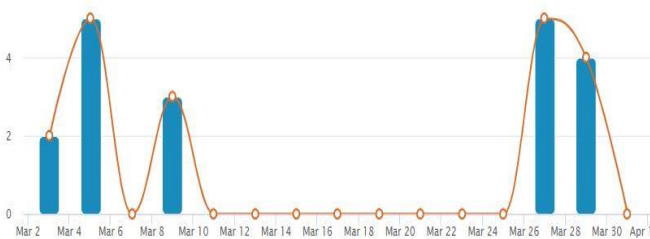
Month-Year	Total Inbound email	Rejections (includes viruses & spam)	Legit Inbound Email	% Rejections	Total Outbound email	Total Internal email
Apr - 2019	4,718	1,583	3,135	33.55 %	1,092	4,661
May - 2019	6,263	2,308	3,955	36.85 %	1,495	5,200
June - 2019	6,453	3,182	3,271	49.31 %	1,373	4,314
July - 2019	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 %	1,382	5,089
Mar - 2020	8,176	3,422	4,754	41.85 %	1,849	6,204
<b>Total</b>	<b>110,222</b>	<b>66,706</b>	<b>43,516</b>		<b>15,565</b>	<b>60,537</b>
<b>Mean</b>	<b>9,185.17</b>	<b>5,558.83</b>	<b>3,626.33</b>	<b>55.00 %</b>	<b>1,297.08</b>	<b>5,044.75</b>

## Vipre Endpoint Security

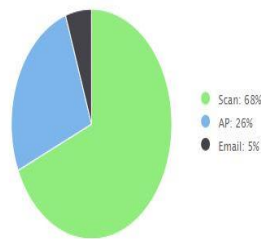
### Threat Summary Report

Export CSV

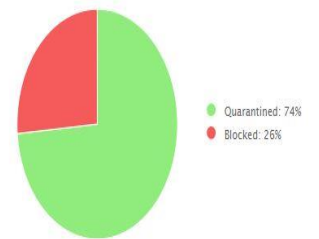
INSTANCE VS. DEVICES



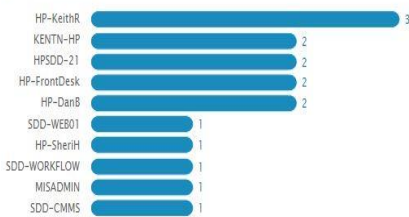
DETECTION SOURCES



ACTIONS TAKEN



TOP 10 DEVICES



SEVERITY BREAKDOWN



TOP 10 THREATS



### DETECTIONS

TIME	NAME	SOURCE	SEVERITY	DEVICE	POLICY	ACTION TAKEN
Mar 30, 2020 2:49 PM	Trojan.GenericKD.33579982	AP	Severe	HP-KeithR	Workstations	Blocked
Mar 30, 2020 10:36 AM	Trojan.GenericKD.33579982	AP	Severe	JAREDH-GIS	Workstations	Blocked
Mar 30, 2020 8:12 AM	Trojan.GenericKD.33579982	AP	Severe	HPSDD-21	Workstations	Blocked
Mar 30, 2020 7:52 AM	Trojan.GenericKD.33579982	AP	Severe	HP-FrontDesk	Workstations	Blocked
Mar 28, 2020 12:03 PM	Trojan.GenericKD.33574983	Scan	Severe	HPSDD-21	Workstations	Quarantined
Mar 28, 2020 12:02 PM	Trojan.GenericKD.33574983	Scan	Severe	HP-DanB	Workstations	Quarantined
Mar 28, 2020 12:01 PM	Trojan.GenericKD.33574983	Scan	Severe	KENTN-HP	Workstations	Quarantined
Mar 28, 2020 1:04 AM	Gen.Variant.Ursu.801152	Scan	Severe	SDD-CMMS	Server	Quarantined
Mar 27, 2020 12:01 PM	Gen.Variant.Ursu.801152	Scan	Severe	SDD-WEB01	Server	Quarantined

# SANITARY DISTRICT OF DECATUR

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

## MEMORANDUM

### **Systems Integrator Monthly Update**

- West Headworks upgrade project – completed new SOP with Farnsworth, added level detection to new Vulcan Washer Compactor reducing runtime by almost 80%
- Working on creating a new SOP for the East Headworks
- Adding communications verification to each ethernet device in the new Smart MCC's to give early notice if devices are having communication issues
- Updating firmware in outside pump station modems
- Setup to be able to work remotely from home
- Verified the operation of all equipment relating to disinfection and automatic operation of the inline chlorine analyzers

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)