



Operations Manager's Activity Summary for 2021

S. Stanford

COVID-19

2021 was a challenging year for COVID-19. Diligent efforts were undertaken to mitigate its impact on Sanitary District operation through testing, contact tracing, and completion of CDC-recommended quarantine/isolation periods. Twenty-four (24) Sanitary District employees tested positive for COVID-19 during 2021, fourteen (14) of which were in December. Three of us suffered our second infection during 2021. The infection was serious for several employees, but all have recovered during 2021 and early 2022.

SAFETY and PROCESS SAFETY

Supported D. McCoy's Risk Management Planning (RMP) process by calculating the weight of combustible gas stored on site in the sludge digestion systems. Under winter conditions, approximately 6,500 lbs. of combustible methane/carbon dioxide mixture are contained within the digestion system. Under summer conditions when the gas is less dense, the weight totals approximately 5,900 lbs. This allowed Mr. McCoy to determine that the District is not subject to RMP requirements, nor EPA Tier II reporting requirements for combustible gas on site. The District is nevertheless subject to both requirements because of the mass of chlorine and sulfur dioxide gases stored for disinfection of wastewater.

Operational Coordination:

Water Reclamation – Assisted WWTP personnel with the treatment of a 5,200 lb. slug of phosphorous-containing water treatment chemical; calibration of WWTP D.O. probes; characterization of Water Department industrial discharges; review of proposed hauled wastewater; evaluation of sludge drying to improve the District's biosolids management program; and preparation to assume the Land Application Program upon Mr. Kuss's departure.

Collections – Coordinated the North End Sanitary Sewer Capacity Study; snow disposal; residential sewer backups; Double-Track project plan reviews; customer inquiries for new sanitary sewer connections; sewer construction for the Lakeside Townhomes; sanitary sewer system repairs.

Stormwater – Investigated and implemented stormwater drainage improvements affecting residents of California Avenue; Duneland Beach Dr; Washington Park Blvd; Ohio Street, and beaver dam removal at Striebel Pond.

Refuse – Assisted with coordinating repairs to Refuse R-08.

Personnel

1. Assisted the General Manager with interviews and on-boarding of new staff for 14 positions including the following:
 - (6) Full-time regular Refuse Driver/Loaders
 - (3) Beach Technicians
 - (2) Full-time regular WWTP Operators
 - (1) Maintenance Mechanics
 - (1) Collections System Technicians
 - (1) Full-time regular Laboratory Technicians
2. Continued weekly staff meetings with engineering and GIS staff in furtherance of project management and coordination.
3. Daily morning meetings with Collections staff.

Complaints/Resolutions

Snow at Gardena Park - Investigated and resolved a customer's complaint regarding the stacking of snow at Gardena Park. More suitable City-owned property was located and utilized.

Sewer Backup at 1115 Earl Rd – Cleaned, cut, videoed and re-jetted until flow was restored along customer's lateral. Placed the sewer on a semi-annual cleaning/cutting schedule.

Sewer Backup at 447 Walker St – Jetted, inspected, and retained J. Doyle to prepare an engineering report, place the sewer on an annual maintenance schedule.

Arby's Driveway Pothole – Video inspected underlying storm drain, found it to be in excellent condition, advised the restaurant manager that the driveway simply needed a private repair.

Striebel Pond Fish Die-Off – An initial complaint of dead waterfowl was received on July 29. Sampled the water for chemical pollutants and found none. Checked temperature and dissolved oxygen, found the water to be 85° F and the dissolved oxygen down to 3.3 mg/L. Water level was also extremely low. Many large mouth bass did not tolerate these conditions and perished.

Stormwater Flooding – Investigated the performance of the stormwater drainage system at the California Ave lift station. Vacuumed several cubic yards of sand from the drywells and infiltration pipes, then re-worked the inlet system. The system appears to be working well now, due in large part to a decline in the local groundwater table corresponding to the recent decline in the Lake Michigan water level.

Stormwater Accumulation – Investigated the customer's complaint at 307 Duneland Beach Drive. Collections installed a pea gravel-filled trench alongside the road to promote natural infiltration that the customer's landscape project had impaired.

Vehicle Collision – Investigated customer complaint regarding a refuse truck backing into their retaining wall, reviewed customer's video recordings, and turned the matter over to Traveler's Insurance.

Plan, Building Permit, HDD, Petition Reviews, FOIAs, and Lateral/Tap Permits

Building Permit and Plan Reviews: To help to avoid conflicts or encroachments on the District's mostly unseen infrastructure, Operations Manager, engineers, and the GIS Coordinator worked closely to review 150 building permit applications for projects that included the several specific types:

- (25) New homes
- (23) Commercial projects of various types
- (20) Decks
- (13) Sheds
- (7) Garages
- (7) Residential additions
- (8) Pole barns
- (6) Patios
- (3) ADA ramps
- (3) Remodels
- (3) Residential subdivisions
- (2) Accessory dwellings
- (2) Porches

Planning Department Petitions: Worked closely with engineers and GIS Coordinator to review and research potential conflicts with sewer or storm drains associated with more than 20 Planning Department Petitions including the following types:

- (6) Zoning variances
- (3) Vacations of existing public rights-of-way
- (2) Fences
- (1) Rezoning
- (1) Special use exemption
- (1) Restaurant drive thru
- (1) Variance from development standards
- (1) Zoo habitat expansion

HDD Permit Applications: Approval letters, most with custom maps, were written for 31 projects to avoid interference with sewers and storm drains:

- (31) HDD Projects, mostly for Comcast, AT&T, and NIPSCO

FOIA Public Records Requests: Filled FOIA requests for 31 properties and facilities:

- (31) FOIA requests from contractors and property owners, often for Phase I ESAs

Lateral/Tap/Sewer Construction Permits: Worked closely with A. Himaj to issue over 110 lateral tap permits, most of which were of the following general types:

- (34) New service connections
- (29) Demolitions
- (16) Service disconnections
- (13) Repairs
- (9) Replacements

Laboratory:

1. Coordinated the procurement and installation of a new reagent water purification system from Millipore. Rather than using steam distillation, the system uses ion exchange, reverse osmosis,

and UV disinfection. As such, the new system is estimated to use 5,000 kWh less electricity than the old still, which saves the District about \$500/year in electricity cost. It also uses an estimated 90,000 fewer gallons of cooling water per year, which would otherwise cost the District about \$320/year.

2. Coordinated the submittal of documents to A2LA's CAB portal in support of the District's annual 2021 lab accreditation review.
3. Prepared Resolution for the scrapping of obsolete lab equipment (spectrophotometer and peripheral equipment).
4. Assisted the lab with purchase orders for supplies from VWR and Millipore.
5. Managed all fieldwork for the 2021 beach season Lake Michigan water quality sampling campaign with the laboratory and Parks Dept.
6. Invoiced the Parks Dept. for the 2021 beach season Lake Michigan water quality sampling campaign.

Deliverables Prepared:

Coordinated or assisted with the management of several special projects, a majority administered with RFQs, evaluation of quotes & bids, construction agreements, or professional services agreements. Also assisted with hiring new employees by preparing offers of employment for M. Kuss's use. Prepared the following types of deliverable documents in their indicated quantities:

- (11) Request for Quotes (RFQ)
- (18) Professional Service Agreements (PSA)
- (10) Employment offer letters
- (8) Construction Agreement
- (2) Press releases

Significant Reports Prepared

1. Annual Report, Partners for Clean Air (6 p.)
2. Annual Report, Industrial Pretreatment Program (17 p.)
3. Slug Discharge of Phosphorous-Containing Water Treatment Chemical by the Department of Water Works (17 p.)
4. Sanitary Sewer Backup Investigation for 1115 Earl Rd (7 p.)
5. Round 1 VW Grant Award Final Progress report (15 p.)
6. Investigative Report, Elevated E. Coli in Final WWTP Effluent (3 p.)
7. Briefing Memorandum for Permit Renewal, Industrial Pretreatment, Midwest Wheel Coaters (7 p.)
8. Investigative Report, Employee's Complaint (10 p.)
9. Investigative Report, Elevated Total Residual Chlorine in Final WWTP Effluent (2 p.)
10. Video Inspection Report, Vicinity of 8th & Walker Streets (3 p.)
11. Incident Report, Hydraulic Fluid Release from R12, Alley Adjoining 507 Vail St (2 p.)

Grant Activity:

1. Closed-out the VW Environmental Trust grant by issuing a final report and invoice to the IDEM.
2. Assisted the General Manager with administration of the EPA Brownfields grant, mainly by providing technical review and comments on deliverables prepared by BCA in connection with environmental assessments at:
 - a. Pullman-Barker Site
 - b. 1001 Franklin Street former gas station property
 - c. Trail Creek Properties

Pretreatment Program Tasks:

The Pretreatment Program had a successful year, finding only two (2) incidents of non-compliance among its permitted Significant Industrial Users (SIU). This was once during 2Q and once during 4Q when elevated concentrations of total zinc were measured in discharges from Triplex Plating. Because these were the only such exceedances detected in the facility's industrial discharge in over three years and there was no harm to the POTW, the District considered these events to be "infrequent or isolated minor violations" of the facility's permit. The first instance resulted in a verbal telephone notification with written record, and the second resulted in a written Notice of Violation per the District's written Enforcement Response Procedure. Triples immediately re-established compliance with its permit and was requested to submit a Corrective Action Plan to avoid future exceedances.

Other highlights of the Pretreatment Program included:

1. Prepared major modification to Sullair's industrial discharge permit to provide for a second type of industrial wastewater discharge from a new categorical metal finishing operation placed into service during March 2021.
2. Renewal of Midwest Wheel Coater's otherwise expiring permit, effective December 16, 2021.
3. Approved a hauled wastewater permit renewal for Johnson Septic Service, Inc.
4. Invoice issued for permit renewal and quarterly compliance monitoring, sewer usage, and excess strength surcharges.
5. Continued to fill the role of Pollution Prevention Coordinator.
6. Inspected the District's five (5) permitted SIUs (Triplex, Sullair, PHM Brands, Midwest Wheel Coaters, and Waste Inc., finding all facilities in compliance except Triplex Plating as discussed above.
7. Completed monthly evaluations of self-monitoring and compliance monitoring data, with monthly updates to the tracking spreadsheet.
8. Completed quarterly reports to the IDEM regarding industrial compliance.
9. Completed the District's Annual Pretreatment Monitoring Report for 2020 (the Annual Report for 2021 is due on April 1, 2022).
10. Continually updated the District's industrial sewer user inventory spreadsheet using information obtained mainly from New Business Registrations filed with the City of Michigan City.

REVENUE GENERATED

Projects and other activities managed through the Operations Manager's office generated revenue for the Sanitary District during 2021. A summary of such activities is provided below:

2021 Revenues			
Flows metered and billed through the Pretreatment Program:			\$24,216.23
Excess strength surcharges billed through the Pretreatment Program:			\$25,254.61
Pretreatment permitting fees:			\$1,500.00
Pretreatment compliance monitoring fees:			\$8,400.00
2021 Sewer construction and lateral tap permit fees:			\$8,450.00
CNG special excise tax refund applied for and received:			\$11,709.95
Lake Michigan beach water quality monitoring, 2021 beach season:			\$28,500.00
Scrap revenue for three dump trucks decommissioned under VW Env. Trust Grant:			\$4,619.00
Proceeds for VW Env. Trust for three new CNG dump trucks, received Jan 2022:			\$140,734.00
Total billed/received, 2021:			\$253,383.79