



Annual Workshop Report

January 25-26, 2019
Public Works Department

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Accomplishments 2018

TOPIC 1 – Public Services Division

The Public Services Division includes Streets, Fleet Maintenance, Marina, Water and Sewer Collection and Distribution. It consists of 1 Deputy Director, 1 Superintendent, and 1 Marina Manager. In addition, the Streets department consists of 1 Operation Foreman, 1 Maintenance Lead, and 8 Maintenance I. The water and sewer distribution and collection department consists of 1 Operation Foreman, 2 Operators, 4 Maintenance I. The Fleet Maintenance division has 1 Fleet and Supply Controller, 2 Mechanics, and 1 Service Technician.

The Buildings and Grounds Department includes Buildings, Cemeteries, Parks, Utility Locating and Asset Management. It consists of 1 Deputy Director, 2 Superintendents, 1 Operation Foreman, 1 Facilities Maintenance Tech, and 1 Facilities Repair Tech, 1 Electrician, 1 Apprentice Electrician, 1 Plumber, 1 Infrastructure Asset Specialist, 1 Utility Locator and 5 Maintenance I.

Public Works: The following items include all Public Works Departments.

Cartegraph – Public Works began the upgrade to OMS in 2014. The shop was upgraded to OMS in 2016, now all crews are tracking all activity through OMS and will be able to track actual cost on all projects. Crews are utilizing iPad's on the job and entering data on site instead of coming back to

the office to enter the information. In 2017, we brought the Solid Waste Campus, Water, and Wastewater Plants staff into Cartegraph. In 2018, all building maintenance and plant operations were tracked through Cartegraph. In 2019, a new update will be installed in Cartegraph which will require staff to build new reports. Old reports will no longer be supported with this update. Staff also will start to build Preventative Maintenance Plans in Cartegraph which will automatically generate tasks that need to be done based on time or hours for each asset.

Ole Miss Marina – Improvements were made to G-dock during the winter months with new decking being installed along with new water lines and some electrical upgrades. Improvements were also made to the storage yard with a perimeter security system being added, tree removal along the back side of the fence, and lights were also installed for added security. Continued replacing boards at Colvill. Sold five abandoned boats that were in the storage yard for \$5,396.00.

Fleet Maintenance – The shop had 2,037 shop tickets for vehicle repair. 20 new vehicles were purchased and 16 were sold, of them 9 were traded in and 7 were sold on GovDeals or at auction.

Storm Damage - Public works crews from all departments responded to 2 storm damage incidents in 2018. On 7/12/18, we had a wind event come through and we logged 116 hours labor and hauled 105 yards of material to the Waste Campus. On 8/27/18, we had a large straight line wind storm and we logged 950 hours of labor and hauled 2,553 yards of brush to the Waste Campus. We also sustained major damage at the Airport, lost 35 trees at Bay Point Park and received damage to the Marina. During the storm, the wind severely damaged the roof and door on the Aircraft Service Center at the Red Wing Airport. The roof has been temporarily repaired and bid documents have been put together for the replacement of the roof. Staff is still in discussions with the current tenant and LMCIT about the door replacement.

Sidewalks – Staff and crews continue working on the Mayor’s Task Force sidewalk maintenance program. We inspected 1/3 of the city’s sidewalks in 2018. 26 letters will be sent out to residents with sidewalks that rated in the poorest condition. City crews replaced 20 sections of sidewalks that were found to be out of compliance as well as 27 sections that need to be replaced because of damage by boulevard trees. The trees were removed along with the sidewalk and were replaced with new.

Streets

There are 105 miles of paved streets, 6 miles of alleys, and 15 miles of gravel roads to maintain, spread over 40 square miles with 4,375 streets signs, 12 miles of trails, and 69 miles of sidewalks.

Street Work – Public Works crews reconstructed 2 alleys this past summer. The alley between Franklin and Hill and 3rd and 4th Streets as well as the alley between Dakota and Fulton and 4th and 5th. This consisted of removal of the old blacktop, sub base installation, installation of new curb and gutter and installation of new bituminous as well as matching up all driveways. Crews spent 676 hours spray patching pot holes using 1,601 gallons of oil and 47.25 yards of rock on various city streets. Staff spent 765 hours painting crosswalks, stop bars and parking stalls using 507 gallons of paint. We also contracted the painting of all 137,183 feet of centerline striping.

Concrete and Blacktop – Crews poured approximately 516 yards of concrete and paved roughly 900 tons of blacktop on various city projects.

Snow and Ice - Crews spent 4,748 man hours on snow and ice removal operations last season. We applied 1,332 tons of treated salt, 92 yards of class 5 mixed with salt on gravel roads, 11,600 gallons

of anti-ice liquid pretreating roads and hauled away 12,188 yards of snow from the downtown area and some residential areas. We called 2 snow emergencies, one on 1/23/18 when we received 11" of snow and one on 3/6/18 when we received 7" of snow. We received about 70" of snow for the season.

Sweeping – Crews spent 1,057 hours sweeping city streets picking up over 819 yards of sand and 564 yards of leaves.

Material Handling Site – We hired a contractor to crush our yearly blacktop and concrete piles and they crushed 1,685 tons of concrete and 2,115 tons of blacktop. We also hauled approximately 2,500 yards of black dirt/dredged material to the site to be used for turf reestablishment in the future.

Water Distribution Sewer Collection and Storm

Maintains all underground infrastructure including 1,003 fire hydrants, 3,001 water valves, and 102 miles of water main. The sewer system includes 12 lift stations, 2,369 man holes, and 99 miles of sewer mains. Storm Water System: Consists of 926 manholes, 2,890 inlets, 209 outlets, 64 ponds (57 City, 7 private), 7 miles of tunnels, and 50 miles of storm water pipes. All storm water projects are completed with staff from both streets and utilities.

Sewer Main Repairs and Maintenance – The sewer collections crews responded to 6 sewer main backups of which all were private lines. The Vactor cleaned about 289,394 feet of the 523,000 total feet of sewer lines and videotaped 8,500 feet of sanitary and storm sewer.

Construction Projects - Crews worked 306 hours on the 10th and Bush Street project. 714 man hours were spent on the street overlay project including valve turning and repairing 59 inlets. 168 hours were spent on the new Hwy 63 Bridge and 142 hours on the Spring Creek Intersection. 92 hours were spent on the water main extension that was done on 21st Street.

ISO Project – (Insurance Service Office) Crews have been working on the ISO project which was initiated by the Fire Department to get a better fire rating for insurance rates. Public Works crews had 782 tasks in Cartegraph for labeling and taking photos. Crews also spent 470 hours on 1,985 tasks for flushing and the required annual inspections of hydrants.

Water Main Repairs – Crews responded to 8 water main breaks and 1 service leak. Crews spent 460 hours turning 328 water valves. Crews replaced 6 broken water valves and spent 200 hours on a service that was hit by a contractor which was billed to that contractor. Crews had 201 tasks in Cartegraph spending 227 hours on hydrant maintenance, 115 hours on painting, and 73 hours rebuilding hydrants.

Storm Water Repairs – Crews spent 659 hours clearing trees and brush from easements.

Airport – Crews spent 475 man hours clearing snow at the Airport.

TOPIC 2 - Airport

FBO and Caretaker Agreements – The FBO and Caretaker Agreements with Blue Airways were negotiated and renewed for an initial five-year term and an optional five-year renewal period.

New Hangar Construction – Red Wing Aeroplane requested and was approved to begin construction of a third 10,000 s/f hangar to house their growing charter business. Construction was in process when a major wind storm came through the Airport in August causing significant damage to the partially constructed hangar. Construction is expected to start again in 2019.

MnDOT Grant Application – A grant application was developed and approved in 2018 for the repairs and upgrades to the Jet “A” fueling system and upgrades to the Arrival/Departure building. These upgrades will include replacement of the fuel cabinets, hose reels, communication lines, data logger and lighting improvements. The Arrival Departure (Terminal) Building upgrades will include replacing bathroom fixtures to meet ADA standards, hall heater replacement, lighting upgrades and the installation of exterior handicap accessible doors. The work will be completed in 2019.

TOPIC 3 - Buildings and Grounds:

There are 104 different buildings to maintain at 24 locations and there are 686 street lights with 22 miles of electrical lines. Our grounds consist of 20 different playground areas within 38 parks on 1,423 acres with 6,075 trees located in city parks and boulevards, three cemeteries on 117 acres and maintaining 69 acres of it with 15,206 internments, and 12 miles of trails.

- **Weed Violations**
 - 87 Weed Violations Inspected

- **Sidewalk Snow Removal**
 - 156 sidewalks inspected
 - 36 sidewalks shoveled and billed per policy

- **Athletic Field**
 - Installed Splash Pad
 - Installed water and storm utilities
 - Concrete
 - Drinking Fountain
 - Site Restoration

- **Bluff View Park**
 - Repaired large retaining wall in preparation for playground replacement
 - Replace fencing

- **Colvill Aquatic Center**
 - Replaced the water play feature

- **Colvill Park**
 - Replaced the horse shoe pits and fencing

- **Pottery Pond**
 - Stabilized both east and west shorelines
 - Replaced sidewalk to fishing pier with ADA access
 - Replaced decking on fishing pier
 - Added two fishing opportunities on the SE side of the pond

- Removed old duck nesting island
- Rehabbed the east fishing point
- **City Hall Annex**
 - Replace the roof and metal on mansard exterior wall
 - Installed 6 new roof drain lines
- **City Hall**
 - Rehabbed the front wood entryway
 - Replaced asphalt shingled roof and associated flashing
- **Sheldon**
 - Renovated public restrooms
 - Replaced carpet
 - Lobby tile restoration
 - Decorative finishes conservation
- **Fire Station 1**
 - Replacement of HVAC system
 - Created individual dorm rooms
 - Replaced all carpet
 - Re-painted the majority of the interior
- **Fire Station 2**
 - Started construction of new fire station
 - Constructed training tower
- **GCHS**
 - Finalized plans and put out to bid for winter/spring construction
- **Airport**
 - Worked with LMCIT to repair storm damage to Aircraft Service Center (ASC)
- **Cemetery**
 - 38 Vault and Casket Burials (29 – Oakwood, 9 – Burnside)
 - 46 Cremation burials (35 – Oakwood, 11 – Burnside)
 - 2 Columbarium Niches (1 – Oakwood, 1 - Burnside)
 - Mixed 42,800 LBS of concrete for markers and monuments
 - Installed 10 Markers at Oakwood and Burnside
 - Installed 44 Monuments
 - 19 Sales of Cemetery Lots
 - 6 Perpetual Flower Fund purchases

Private Use of Public Property Applications and Facility use Requests – Public Works staff processed 96 PUPP’s for events and construction projects. Staff also processed 383 requests for the use of the various shelters and facilities in the Parks.

TOPIC 4 - Utility Division

The day-to-day activities related to the City’s water and wastewater utility operations falls within two Public Works Divisions, Public Services and Utilities. The Public Services components include operation and maintenance of the water distribution and fire protection systems; sanitary wastewater collection, including remote lift stations; and the storm water collection, conveyance and

treatment/discharge facilities. The Utility Division components includes the operation and maintenance of five wells, two water treatment plants, seven water storage reservoirs, five booster pump stations, three pressure reducing valve vaults, an Industrial Wastewater Pretreatment Plant, the main wastewater lift station and the main Wastewater Treatment Plant. The Utility Division also provides engineering design and construction contract administration to utility related capital improvement and maintenance projects, and is responsible for the programming requirements, permitting and inspection associated with the storm water management program.

Utility Division personnel include the Deputy Director/Environmental Engineer, Environmental Services Manager, City Chemist, Field and Laboratory Technician, Chief Wastewater Operator, Chief Water Operator, two Wastewater Operators, two Assistant Wastewater Operators, and two Water Operators. The organizational structure changed at the beginning of the year to accommodate a retirement and succession planning to future retirements and position the division for future program retirements.

Public Services Division staff breakdown and accomplishments were provided elsewhere. Some of the more significant Utility Division accomplishments are identified below.

Utility Division Accomplishments

The accomplishments identified below represent specific projects outside of the main Division focus, which is operating the water and wastewater treatment and pumping facilities. The accomplishments were largely completed on a management level, however considerable input and assistance was provided by the operations staff.

Bench Street Industrial Pretreatment Plant Optimization – The Bench Street Pretreatment Plant uses chemical treatment and enhanced settling to treat the water from the S.B. Foot Tannery. The treatment process results in a sludge that is dewatered and landfilled at an industrial landfill. Work continues on optimizing the operation of both the water and sludge treatment facilities. All the sludge was removed from the storage lagoons and an alternative method to dewater sludge in the event the presses were down was evaluated and will be implemented in the first quarter of 2019. This will significantly increase the reliability of the Bench Street operation.

2017 Storm Tunnel Repair Project – The first phase tunnel repair project was completed this year. This was originally intended to be a one year project, but extended through a second year when it was determined that the condition of the tunnel roof was much worse than originally thought. The additional work provided an opportunity to increase available parking on Fifth Street in front of the HRA. Additional storm water tunnel repairs were incorporated into the levee project which will be completed in 2019. These two projects will address all the tunnel segments that were determined to be in critical condition in the comprehensive storm tunnel evaluation that was completed several years ago.

Mechanical Improvements at the Main Wastewater Plant – The piston style intermediate sludge pumps at the main wastewater treatment plant were replaced with rotary lobe pumps. This required extensive piping and instrumentation and control modifications and the construction had to be phased to permit normal operations during the change out. The majority of the work was completed by the Public Works crews. This was part of an ongoing effort to modernize the nearly 60 year old treatment plant so that it can continue to function reliability and cost effectively into the foreseeable future.

TOPIC 5 - Solid Waste Division

The Solid Waste Division includes the Refuse and Recycling Collection operations, the Material Recovery Facility (MeRF) and the Waste Campus activities listed below. Staffing for these operations and activities is distributed as follows: 1 Deputy Director, 2 Superintendents R/R Waste Campus, 1 Office Coordinator, 1 Office Clerk and 1 Weekend Municipal Gate Attendant, (Saturday, Part Time). Refuse and Recycling Collection Staff consists of, 1 Operational Foreman Refuse/Recycling, 8 Maintenance I/Apprentice Maintenance. The Waste and Recycling Processing and Refuse Derived Fuel Staff includes 1 Operations Foreman, 1 Maintenance Staff, 5 Maintenance I/Apprentice Maintenance, and 1 Institution Community Work Crew (ICWC) Leader with 7-10 ICWC Staff.

- Awarded a \$250,000 grant from the Minnesota Pollution Control Agency for the implementation of a single sort collection system, this grant will be used to fund the purchase of new collection equipment including new 96 gallon carts and side load collection vehicle.
- Awarded a \$60,000 grant from the Recycling Partnership that will also be used towards the implementation of the single sort collection system, specifically for the purchase of 96 gallon carts and supportive recycling education and outreach.
- Purchased a new compactor for use at the St. Crispin facility bringing that organization significant savings and enhanced efficiencies to their waste and recycling operations.
- Continued to refurbish rear load dumpsters and residential carts City wide to improve the functional use and appearance of City owned cans.

In June of 2017, the Waste Campus had a significant fire that caused extensive damage while under renovation to upgrade the old incinerator building. Since this fire, the City waste processing operations have operated under less than ideal conditions for the majority of the year. The Waste Campus staff have worked very hard to maintain the same levels of service while trying to recover from the effects of the fire. At this time, the Waste Campus has experienced no drop in service or capacity.

- Approval of Waste Delivery Agreement between Goodhue County and the City of Red Wing.
- Begin the process for implementation of waste designation by Goodhue County.
- Approval of Insurance Settlement from the LMCIT.
- Approval of new waste processing operations design.
- Approval of contractor bids for building and equipment.
- Discontinued use of Bench Street Landfill on December 30, 2018.
- Secured delivery of MSW tonnages from City of Hastings beginning in 2019.
- Replaced fire damaged roof and walls on MRF.
- Implemented new sprinkler system for MRF.
- Completed construction of maintenance building on south side of property.

At this time we have demonstrated an overall increase in our tons of material received and processed in 2018. As well as a significant increase in daily traffic and use by the general public from walk in customers to customers using the yard waste services.

2018 records show increase in waste received, waste processed, customer service and revenues.

	<u>2017</u>	<u>2018</u>	<u>Percent Increased</u>
TONNAGE			
Received from Haulers	19,474.93 tons	22,509.48 tons	15.58%
Total Waste Received & Processed	22,119.64 tons	25,553.87 tons	15.52%
CUSTOMER SERVICE			
Walk-in Cash/Charge Customers	12,596 42.13/day	12,983 43.86/day	3.07%
Yard Waste Customers	8,742 29.24/day	9,820 33.18/day	12.33%
Revenues from Walk-in Customers	\$316,655.01	\$338,455.72	6.88%
ROLL-OFFS			
Revenue from Roll-Off	\$158,984.62	\$167,414	5.3%

TOPIC 6 - Sustainability Achievements

- Green Step Award** - The City of Red Wing was recognized for advancing to the highest level in the Green Step Cities program. Achieving “Step 5” is the culmination of many years of work in environmental awareness and stewardship. The award was presented at the League of Minnesota Cities Annual Conference in St. Cloud in June.
- SolSmart Silver Designation Award** - The City was upgraded from a Bronze to a Silver Designation in the SolSmart program. Red Wing is one of the 11 cities in Minnesota who have been recognized by the SolSmart program as a “City Open for Solar Business” with the following breakdown by designation level: 3–Gold, 7–Silver, and 1–Bronze.
- Department of Commerce Commissioner Visit** - Red Wing’s environmental successes drew attention from the Minnesota Commerce Commission. Jessica Looman, Department of Commerce Commissioner visited Red Wing on June 4th to discuss clean energy programs like Xcel’s Partners in Energy and to tour the new 4.8 mw solar garden on the grounds of the Red Wing High School.
- EV Charging Station Installation** - Sustainability Commissioners and City staff worked together in the selection of the 25kV Level 3 Delta DC Fast Charger. The City’s EV Charging Station services all leading brands of electric vehicles including Tesla, Chevy Bolt, and Nissan Leaf. Charging speeds are available at “Level 3” high speed: 75 miles of charge per hour. The Sustainability Commission partnered with citizens and businesses with a citizen group for funding of at least \$2,000 for electricity during this two year pilot program.
- City Wins Achievement Award for Sustainability Efforts** - Red Wing was awarded a “Clean Energy Community Achievement Award” for its Sustainability Commission initiative involving its Partners in Energy (PIE) Green Wing Energy Action Plan. This plan was to help residents and business owners save energy while promoting renewable energy. The City of Red Wing teamed up with Xcel Energy to put energy conservation practices into place which will save

1,761,788 kWh and 146,197 therms. The award was presented to the City of Red Wing and the Sustainability Commission at a Clean Energy Resource Teams (CERTS) Conference in St. Cloud on March 28th. CERTS is the same organization that recently awarded Red Wing a grant for the labor to install an electric vehicle charging station.