



Annual Workshop Report

January 22 – 23, 2021
Public Works Department

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Accomplishments 2020

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, 4 Operators, 1 Assistant Operator, and 1 Maintenance I. The Fleet Maintenance division has 1 Fleet and Supply Controller, 3 Mechanics.

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

Ole Miss Marina – The Marina saw a busy year with almost 100% occupancy of our 285 slips. Revenue was up in almost every area. Dockwa is a web based software that was introduced in 2020 which allows customers to sign contracts and make payments on line. This has saved many staff hours preparing contracts to be mailed out. All transient reservations are also made through Dockwa. 150 transient reservations were made online in 2020 with boats being docked 190 days.

Fleet Maintenance – The shop had 1,834 shop tickets for vehicle repair. 30 new vehicles and equipment were purchased which also includes some battery operated debris blowers and weed

whips. A small equipment grant was received to purchase 6 rechargeable weed whips, chain saws, and a debris blower. 29 vehicles or pieces of equipment were sold or traded. Of the total, 3 were traded in and 12 were sold on GovDeals or at auction and 14 were junked out.

Storm Damage - Public works crews from all departments responded to 1 major storm in 2020. On August 8th we had a wind event come through and crews logged 814 hours labor and hauled 2,566 yards of material to the waste campus. Dakota Wood Grinding spent 25.2 hours processing the waste into chips. The total cost of cleanup and damage was \$114,853.44. Goodhue County was declared a disaster area by the state and funds were made available. Staff applied for reimbursement and received \$86,140.08.

The City also had major flooding in the spring of 2020. A crest of around 12' occurred at the end of March with early predictions of a crest at 18'. 449 hours were logged in preparing and cleaning up.

Riverboats – With Levee Park Improvements being completed in the spring of 2020, staff was expecting 16 visits from 7 different boats from American Cruise Lines and American Queen Steamboat Company. With the spread of Covid19, all 16 visits were canceled. The Marina Committee approved License and Use Agreements with American Cruise Lines, American Queen Steamboat Company, and Viking USA. Staff is expecting a busy 2021 with 17 scheduled visits from 6 different boats.

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 2020. Residents were not required to repair sidewalks in 2020 due to Covid19, but letters were sent out notifying residents of defective sidewalks. Staff will create a list of residential sidewalks for 2021 and letters will be sent to residents with sidewalks that rated in the poorest condition. In 2020, City crews replaced 13 sections of sidewalks that were found to be out of compliance as well as 9 sections that needed to be replaced because of damage caused by boulevard trees. The trees were removed along with the sidewalk and were replaced with new. Crews replaced 8 ADA sidewalk approaches with retaining walls and curbs on Central Ave in preparation of the mill and overlay project.

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 5,569 streets signs, 12 miles of trails, and 69 miles of sidewalks.

Street Work – Public Works crews reconstructed the Legion Alley and the alley by Pestop this past summer. 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. They also prepared the 321 Parking lot for curb and gutter and blacktop. Crews also started working on the Old Zumbrota cul-de-sac. Crews will finish the concrete and blacktop work in the spring of 2021. Crews spent 508 hours spray patching pot holes using 2,000 gallons of oil and 55 yards of rock on various city streets. Staff spent 569 hours painting crosswalks, stop bars and parking stalls using 560 gallons of paint. We also contracted the painting of all 125,183 feet of centerline striping and contracted 45,000 lbs of crack seal to be applied to streets.

Concrete and Blacktop – Crews poured approximately 1,064 yards of concrete and paved roughly 1,033 tons of blacktop on various city projects.

Snow and Ice - crews spent 3,949 man hours on snow and ice removal operations last season. We applied 730 tons of treated salt, 105 yards of class 5 mixed with salt on gravel roads, 6,100 gallons of

anti-ice liquid pretreating roads and hauled away 14,070 yards of snow from the downtown area and some residential areas. We called no snow emergencies in 2020. We received about 42.5" of snow for the season. We had 15 snow events. The first one was 3' on 11/6 and the last one was 5' on 4/13. A total of \$253,537 was spent on labor. The total cost of snowplowing last season was \$461,449.

Sweeping – Crews spent 1,105 hours sweeping city streets picking up over 468 yards of sand and 1,304 yards of leaves.

Material Handling Site – We hired a contractor to crush our yearly blacktop and concrete piles and they crushed 2,865 tons of concrete and 2,242 tons of blacktop.

Water Distribution Sewer Collection and Storm: Maintains all underground infrastructure including 1,010 fire hydrants, 3,020 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 7 sewer main backups of which all but 1 were private lines. The Vactor cleaned about 290,683 feet of the 523,000 total feet of sewer lines and videotaped 58,143 feet of sanitary and storm sewer. Rehabed 11 manhole invert flow lines, spent 155 hours doing Vactor work for other departments, 70 hours to locate, jetrod, and dig up access to Old City Hospital sewer service.

Construction Projects - Crews worked 107 hours on the Putnam Street project. 190 man hours were spent on the street overlay project. 1,339 hours were spent repairing inlets. 122 hours on the Featherstone slip lining project. 224 hours Insulating Water main on Butternut. 291 hours on the Vasa Lift Station rehab. 225 hours preparing for Old West Main Street reconstruction project. Bev's Café sewer project.

ISO Project And Hydrants – (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 468 tasks in Cartegraph for Hydrant maintenance and painting. Crews also spent 407 hours performing 2,059 tasks for flushing and required annual inspections of hydrants.

Water Main Repairs – Crews responded to 2 water main breaks and 1 service leak hit by a contractor. Replaced 2 fire hydrants hit by traffic. Located and dug up well at AP Anderson Park.

Storm Water Repairs – Crews spent 591 hours clearing trees and brush from easements. Sheldon alley, separating storm water of two private buildings from the sanitary sewer system. Installing storm sewer in the Pestop Alley and 321 Parking lot. Storm pond work at Oriole Circle.

Airport – Crews spent 381 man hours clearing snow at the Airport.

TOPIC 2 - Airport

New Hangar Construction – The construction of 1 new private hangar was approved and completed.

Jet “A” Fueling System Upgrades –These upgrades included lighting improvements to the Jet A fueling station. This work was included in a grant covering 70% of the costs received from the State of Minnesota.

SRE Building upgrades – These improvements included replacing overhead lighting fixtures and the conversion to LED lighting. This work was included in a grant covering 70% of the costs received from the State of Minnesota.

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.

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, 2 Electricians, 1 Plumber, 1 Infrastructure Asset Specialist, 1 Utility Locator and 5 Maintenance I.

Athletic Field

- Replace irrigation system on the main field
- Modify pitcher’s mound from Ag Lime to Clay
- Replaced the lower batting cages, new poles and netting
- Prepped upper area for batting cages
- Removed concrete from old bleachers from main field
- Added accent lighting to the scoreboard
- Installed baseball association hall of fame signage

A.P. Anderson Park

- Replaced Outfield fencing on Fields #2 and #3
- Removed old horseshoe pits

Bay Point Park

- Replaced storm damaged light poles with new style poles

Colvill Park

- Replaced roofing at the Aquatic Center
- Prepped for removal of old concession stand, Electrical and Plumbing Work

Pottery Pond

- Replaced weathered surfacing on skate park features

Sandy Lane Park

- Installed 2 Bay, 4 seat swing set
- Replaced pea rock with engineered wood fiber resilient surfacing

Audrey Park

- Installed 2 Bay, 4 seat swing set
- Replaced pea rock with engineered wood fiber resilient surfacing

City Hall Annex

- Installed dumpster storage with privacy fencing

City Hall

- Replaced Ceiling tiles in the Finance Department
- Installed sump for ground water/Jordan River in basement
- Installed glass barrier at 2nd floor reception
- Moved/Modified Mail Room
- Replaces ½ the batteries for the UPS

321Potter Street/320 Bluff

- Removed and replaced concrete floor in the Transit Building (old Coke Building)
- Installed all new underground plumbing in Transit Building
- Installed new underground utilities to both Transit and storage buildings.
- Built retaining wall and landscaped around new entrance from Wisconsin
- Installed new electric service and generator
- New parking lot for Anna Dee's closet and City use
- Built temp wall and began construction on Transit Building

Solid Waste Campus

- Modified admin building entrance to accommodate for COVID

Library

- Modified bathrooms to accommodate touch free/COVID

Goodhue County Historical Society

- Replaced basement sump

Studebaker Parking Ramp

- Replaced rusted step pans and treads and recoated the southeast stairs

Seminary Parking Ramp

- Tuck Point Water Damaged Brick work

COVID

- Procure desktop barriers for different departments

Weed Violations

- Inspected 79 properties for weed violations

Cemetery Activities

- 41 full burials
- 79 cremation burials
- 4 columbaria internments
- 35 markers and foundations installed
- 18 lots sold
- 8 columbaria niches sold
- 8 flower fund accounts sold
- 25 Dedicated Benches Sold

TOPIC 4 - Utility Division

The day-to-day activities related to the City's water and wastewater utility operations fall within two Public Works Divisions, Public Services and Utilities. The Public Services component includes 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 include 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 that are not part of Public Services include the Deputy Director, Environmental Services Manager, Field and Laboratory Technician, Chief Wastewater Operator, Chief Water Operator, two Wastewater Operators, two Water Operators, an Assistant Wastewater and an Apprentice Wastewater Operator.

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.

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. This treatment process is unique and its operation is continually optimized and enhanced. 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. 793 tons of sludge was dewatered and hauled to SKB landfill in 2020.

2019 and 2020 Cured in Place Pipe (CIPP) Projects-- The construction phase of the 2019 CIPP projects was completed with the lining of 2500' of the 30" levee road trunk sewer with a bid cost of \$456,000. Also, the design, bidding and installation of the 2020 CIPP project of 1365' of 24" main on Featherstone Road was completed in 2020 with a bid cost of \$228,778.

Water Division— The Water Treatment Plants produced and distributed 570,677,000 gallons of treated potable water for the year 2020. KLM engineering and the water department completed a survey and analysis of our 8 water reservoirs. This will enable us to schedule the maintenance work including both minor repairs and major CIP repairs for all of the reservoirs. We did a complete overhaul of Well #2 with the installation of new casing, well pumps and updated electrical and communications.

Wastewater Division—The Waste Water Treatment Plant treated 795,000,000 gallons of wastewater in 2020. We land applied 2.3 million gallons of bio-solids on local MPCA approved farm land and in addition hauled 200,000 gallons to the city of Zumbrota. Design work is nearly complete for the replacement and upgrade of the 2 final clarifiers at the MWWTP. An upgrade in the reporting of grease trap cleaning records through BSI is nearly complete with the start of the new reporting

system to begin in early 2021. This will allow us to track and better handle some of the many FOG issues we have within the City. The City lab successfully completed all requirements to maintain certification for drinking water and wastewater analysis. There was a 30% increase in total coliform testing for outside contractors for water distribution projects.

Stormwater Division- Work was started on the new Adopt-a-Drain program which will be rolled out in early spring of 2021. The MS4 General Stormwater permit was reissued in November. Work will continue on updating our SWPPP by April 15, 2021 to be compliant with the new permit requirements. One stormwater pond at Neal Street and Siewert was excavated to improve performance on water quality.

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, 6 Maintenance I/Apprentice Maintenance, and 1 Institution Community Work Crew (ICWC) Leader with a currently reduced staff of 3-4 ICWC Staff. Council approved the addition of 1 Maintenance I position to the 603 fund in 2020 due to increased volumes of waste received.

Refuse & Recycling Collection 600 Fund

In September of 2019, the City of Red Wing adopted a new recycling program transitioning the community from utilizing curbside “source separated” collection bins to the new “single-sort” cart collection system where recyclables are combined into a single cart.

After more than a year of the Single Sort Recycling program being in place, the City's Recycling Program has recorded some very impressive statistics resulting from this operational change noted below.

Comparison of Recycling Tonnages Collected Before & After Implementation	Totals Before Single Sort Program		Totals After Single Sort Program		Percent Change
	Sept 2018-August 2019		October 2019-September 2020		Increase or (Decrease)
Curbside Recycling Tonnage Before Carts (Tons, 2000lbs/Ton)	892.7		1,414.6		58.5%
Curbside Recycling Households Serviced (leave blank if no program)	7,280.0		7,629.8		4.8%
Solid Waste Tonnage from Residential Before Carts (Tons, 2000lbs/Ton)	7,423.1		7,125.9		-4.0%
Solid Waste Households Serviced	7,484.0		7,629.8		1.9%
Combined Residential Solid Waste and Recycling Tonnage Before Carts	8,315.8		8,540.5		2.7%
POUNDS/HOUSEHOLD Recycling Before Carts	245.2		388.6		58.5%

The one area of data that is not as clearly defined would be a statistically accurate participation rate. This is somewhat difficult to ascertain because of the differences between the previous and existing collection system which does not allow for an apples to apples comparison. However, based on staff observations the overall participation increased significantly from 61-63% prior to single sort to 77-81% set out rate for residential recycling set outs in the current system. An increase in the overall participation (more households setting recyclables out) would reduce the increase in average pounds

per household but does not diminish the increase in total recycling collected of 58.5% or 521.9 tons. The Single Sort program has produced many additional benefits that are more difficult to quantify including:

- Reduced number of trucks on City streets, reduction in fuel use & GHG emissions.
- Decrease in overall traffic congestion (trucks on the road) which equates to less wear & tear on City streets and alleyways.
- Increased safety & work related injuries to staff.
- Far less litter from recycling tubs being replaced by lidded carts.

Waste Campus 603 Fund

Two major projects were completed in 2020. The first project being the completion of the City's Solid Waste Processing Operations & the second being the closure of the Bench Street Landfill.

The new construction of the City's Refuse Derived Fuel (RDF) Operations and subsequent performance testing was completed in late February of 2020. The initial production goal of these operations was to manage up to 3,000 tons per month and the achievement of a 65% landfill abatement through recycling & resource recovery for all tons received. This goal was set with the expectation that reaching 3,000 tons/month would be quite ambitious and a significant challenge in itself as the most tonnage the City had ever received in its operational history was about 2,000 tons/month. As it turned out the City's operations received in excess of 3,400 tons our first full month of new operations and this would appear to be our new normal.

In terms of total waste received, 2020 saw dramatic increases in tonnages from 2019 as seen below.

Waste Campus Tons Received 2019 vs. 2020	YEAR			Increased Tons	Percent Increase in Tons Received
	2019		2020		
Tons Received from Haulers	23,684.3		35,704.9	12,020.6	50.8%
Total Tons Received	26,734.9		37,766.6	11,031.7	41.3%

The second major project completed in 2020 was the closure of the Bench Street Landfill which was part of a 3 party agreement put forth in Statute for acceptance into the State's Closed Landfill Program. The construction bid for the closure project was awarded to Veit & Company.

The project took approximately 5 months to complete and has been approved by the MPCA pending the drafting of the Closure Agreement and Notice of Compliance issued by the State. At this time, the State is suspending the final steps but this is expected to resume in the near future. The total City cost of the Landfill Closure will be approximately \$1.1 million dollars and will ultimately relieve the City and County of all economic liability associated with environmental impacts that may result related to the long term care and contingencies that may occur at this site.

2020 COVID played a major factor in day to day operations most noticeable in the modification of the Waste Campus hours available to the public. In an effort to halt the spread of COVID, all public access was suspended for the entire month of April limiting the public's access to yard waste & brush drop-off. As a concession, the City Council allowed free brush disposal to residents for the remainder

of 2020 resulting in an expense with no revenue off set. Access was reinstated in May of 2020 but hours were cut back from Monday-Friday 9:00-5:00 to Tuesday & Thursday 9:00-5:00. Saturday hours remained unchanged. The overall effect of limiting public hours and access resulted in an overall decrease in “Walk-In Cash/Charge” customer revenue and visits and also impacted roll-off business operations as seen below.

Walk-Up Customers			
Customer Service Summary	2019	2020	Percent Change
Walk-in Cash/Charge Customers	14,601	10,541	-27.81%
Average	49.66/day	36.86/day	-25.78%
Yard Waste Customers	11,441	11,882	3.85%
Average	38.91/day	41.55/day	6.78%
Revenues from Walk-in Customers	\$396,218.72	\$343,173.39	-13.39%

Roll-Off Operations			
	2019	2020	Percent Change
Roll-off Leases	208	201	-3.37%
Lease Weeks	938	840	-10.45%
Transactions	399	364	-8.77%
Tonnage	960.40 tons	656.44 tons	-31.65%

Roll-Off Revenues			
	2019	2020	Percent Change
Disposal	\$79,954.45	\$62,030.60	-22.42%
Extra Charge Items	\$3,684.83	\$4,201.19	14.01%
Tax	\$18,426.68	\$15,788.35	-14.31%
Haul	\$46,217.04	\$42,060.00	-8.99%
Lease	\$26,426.57	\$23,914.53	-9.51%
Totals	\$174,709.57	\$147,994.67	-15.3%