

To: Mayor Jacque and City Council Members
Cc: Mick Michel, City Administrator
From: John F. Wandsnider, PE – Public Works Director/City Engineer
Date: August 16, 2023
Subject: Public Works Report: July 12 – August 15, 2023

Things have been operating well, for the most part, over the last month or so in the Public Works Department.

Operation and Maintenance of Fleet, Highways, Streets, Alleys, Parks, Trails, Rivers, Creeks, etc.

Mike Maahs and TJ Vorwald, along with part-time summer help, have continued to do an excellent job with normal summertime and regular activities on the streets, parks and trails. This is the last week for Ben, Connor left last week, and Padraig was done a couple weeks ago – we will miss them all.

We took delivery on two vehicles over the last month. One of our long-awaited material-spreading dump trucks finally made it through manufacturing and arrived last week. In addition, a new ¾-ton pick-up for the Street's department was delivered a few weeks ago. It is very important that we keep up with our vehicles and equipment replacement plan that was begun by the Mayor/City Council, the City Administrator, and my predecessor years ago. This program helps to allow us to have the reliability needed to perform our operations and maintenance responsibilities at optimum efficiency and effectiveness. On behalf of Public Works (and the Citizens of Dyersville), thank you for supporting this program.

As was mentioned at a previous meeting, many wayfinding signs have been installed around town – 17, to be exact. These are the 3-foot wide signs designed for placement along low-speed streets. We have taken delivery of another 7 signs (4-foot width, higher speed roads). We are awaiting the final 6, larger signs for along US 52. Once received, we plan to complete the installation process. We have also been freshening up the pavement marking all around town.

Operation and Maintenance of Drinking Water and Wastewater Disposal Systems, and the Aquatic Center

The Drinking Water source, storage, treatment, and distribution systems are serving the City well, thanks to the excellent work of Terry Recker and Joe Reicher, along with part-time summer help. They have been working to maintain the system, including flushing fire hydrants and exercising water valves. Swimming pool maintenance has also been a continual effort, and now we are in the process of preparing it for the off-season. Please refer to the below report from Water Operations.

The Wastewater collection, pumping, treatment, and disposal systems are operating well, thanks to the excellent work of Tim Herbers, with help from Joe (JoAnn left the City earlier this month. We are working toward replacing her soon). Please refer to the below report for last month from Wastewater Operations.

Status of Improvement Projects – 'In-House Design'

Downtown Streetscape Rehabilitation (Added 4/23)

We intend to perform the rehabilitation out of our operations budget, and phase it over about 5 years. I will be meeting with a contractor next week concerning the first phase of the project – the 3rd and the 4th Street intersections of the streetscape portion (behind the curb to the building line). All 6 limestone medallions will be reset, this time on concrete, and the cracked and deteriorating buff-colored handicap panels will be replaced with black powder-coated cast-iron panels.

5th Avenue NE - Dyersville East Rd (Added 2/23)

The contractor plans to begin work after Labor Day, to avoid the heavier tourist traffic.

Wayfinding Signs Project (Added 12/22, though in-progress for years)

Discussed above.

Hwy 52 Manhole Replacement at 2nd Avenue (Added 11/21)

We had pavement cores taken around the manhole and determined that there exists concrete pavement under the asphalt. This requires that we patch the pavement in two steps, which will take several days. The Iowa DOT has suggested that we close the road and detour traffic while this work is being done. This prompted us to look into the possibility of a manhole rehabilitation. So we met with a specialist and are awaiting costs for this. We are also evaluating the reliability of the process with other communities that have used it for decades.

Downtown Businesses Accessibility – (Added June, 2021)

Working toward including recommendations into the sidewalk program.

Legacy Square – Stage (Added Spring 2021)

This project is nearly complete. Lights have yet to be installed.

Status of Improvement Projects – ‘Outside Design’

20 West Industrial Park, Phase III Rise Grant App. (Added August, 2022)

Contract A including sanitary sewer and water has been completed. Contract B that includes grading and erosion control is substantially complete. Contract C (RISE eligible) will include a double box culvert and is planned to be bid in August with 2023 construction. Contract D (also RISE eligible) including roadway storm sewer, concrete paving, and lighting will be bid this year and should be substantially complete by June 30, 2024. Origin will provide and administer construction admin and observation as required during construction.

1st Avenue W. Bridge Over Bear Creek (Added May, 2022)

Contract documents are in the mail. Taylor has not indicated a start-date as yet, but we expect it will be soon - utility locates have already been requested.

3rd Avenue SW Bridge (Added to list in February, 2022)

Awaiting further evaluation

Field of Dreams Stormwater Wetland and Mitigation (Added to list in April, 2020)

Project substantially complete. Temporary erosion control seeding has been placed. Permanent bluegrass seeding has been completed both north and south of Beltline Rd. Native seeding was performed in late November 2022. A live streaming camera of the site is available for viewing at:

<https://video.nest.com/live/G4AGPm8tkR>

Dyersville East Road Water and Sewer Extension 2020 (Added to list March, 2020)

Most of the linear projects are nearly finished. Work continues on the wastewater lift station and the water booster station.

Bear Creek Restoration (SRF Sponsored Project)

Construction for this project is complete. The contractor will perform mowing and vegetation management in 2023 for maintenance on the wetland prairie. Typical prairie seeding takes 3 years to be fully established with intended growth of flowers and grasses. The project performed well to capture sediment without significant channel erosion in the 2023 spring flood. A video camera is mounted near 3rd St. with a public video link for anyone to monitor. <https://www.senserasystems.com/public/embed/M78018326A93>

Respectfully submitted,

John F. Wandsnider, PE - Public Works Director / City Engineer

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Memorandum

To: Mayor, City Council Members and City Administrator
From: Terry Recker, Water Operator
Date: August 3, 2023
Subject: **Water Operation July 2023 Report**

Water Pumped

Total Water Pumped for Month	13,468,000 Gallons
Average Pumped per Day	434,000 Gallons
Maximum Daily Pumped	540,000 Gallons

Chlorine Testing

Average Free Chlorine in the System –	1.26 mg/l
Average total Chlorine in the System -	1.34 mg/l

Polyphosphate

Average Residual at Well #4	0.94 mg/l
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Water Call Outs

0 for the month
Total for the year – 4

Water Main Breaks

0 for the month
Total for the year – 2

Water Activities

104- Line Locates Completed
87-Water Work Orders Completed

Operations and Maintenance

Bacteria samples were taken, and the results were negative. The monthly operating report was completed and sent to the DNR. Preventative maintenance was completed at Well#4 and #5, including exercising water valves and doing well draw down at both wells. Daily rounds were completed for the month at both wells. Meter reading was also completed this month. Progress on the new water booster building is progressing nicely.

Water Operator,
Terry Recker

Memorandum

To: Mayor, City Council Members and City Administrator
From: Wastewater Operator
Date: 8/8/23
Subject: **Wastewater Operations –**

Influent Flows

Total Treated for Month 13,574,000 Gallons
Average Flow per Day 437,000 Gallons
Maximum Daily Flow 552,000 Gallons
Average Influent Biochemical Oxygen Demand 290 mg/l
Plant loading pounds per day of 1155 lbs. plant design loading 2400 lbs. per day
Average Influent Total Suspended Solids 323 mg/l.
Plant loading pounds per day 1275 lbs. plant design loading 3600 lbs. per day.
Average Influent Total Nitrogen 21 mg/l
Plant loading pounds per day 95 lbs.
Average Influent Phosphorous 15 mg/l.
Plant loading pounds per day 66 lbs.

Effluent Testing

C.B.O.D. Monthly Average	.8 mg/l	Limit - 25 mg/l
T.S.S. Monthly Average	0 mg/l	Limit - 30 mg/l
Ammonia Monthly Average	0 mg/l	Limit – 13 mg/l
Total Nitrogen	13.83lbs per day	Yearly Average 88lbs per day
Phosphorus	2.23lbs per day	Yearly Average 24lbs per day
E-coli	Not required mg/l	Limit 126 MPN

Sewer Call Outs – 1 for the month at the Treatment Plant.
Total for the year – 8

We had another complete lost of power to the plant. That make this the forth one this year, looking forward maybe to upgrade to a generator to backup the plant as the transfer switch is not working. We have backup generators on Well 4 and on the booster station so with that said the wastewater is still being created so it would be a good idea to have the wastewater plant not able to lose power. When we lose power, the main lift will start to backup and the without the oxidation rotors turning our treatment process starts to die off. With sewer jetting completed for the year now we begin to camera that section we just completed. And continue routine maintenance.