

To: Mayor Jacque and City Council Members
Cc: Mick Michel, City Administrator
From: John F. Wandsnider, PE – Public Works Director/City Engineer
Date: March 15, 2023
Subject: Public Works Report: February 15 – March 14, 2023

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

Flood of 2023

Reportedly 2-1/2 inches of rain fell on the area on March 26 and 27. As quickly as the rivers and creeks came up in the morning in Dyersville, they went back down in the afternoon/evening. Events like this historically were catastrophic for the homes that used to exist in the flood-buyout areas now a part of Westside Park, but they are now more of a nuisance, though an expensive nuisance. Most of the clean-up has been done by City crews, but some of it has, and will require special equipment. Also, some materials were needed such as lime for ball fields and mulch for playgrounds (See pictures from the flooding and aftermath, below).







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

Mike Maahs and TJ Vorwald continue to do a great job with the operations and maintenance of Dyersville's streets system. Until the last week or so, we have been hit with a number of Thursday snow-storms in a row, and have been making use of our snow-melt and equipment quite regularly. Hopefully we have seen the end to significant snowfalls for this season. Of the 500 tons of salt planned for this season, we estimate that we have used about 325 tons to-date.

To prepare for the St. Patrick's Day events, we contracted a liquid snow-melt pretreatment on the 8-miles of main event routes (parade and 'gallup'). This seemed to significantly help to make sure the routes were clear when needed. Public Works also prepared the necessary signs and cones for traffic and vehicle control to help to make the events a success.

As time and conditions allow, we have also continued to fill potholes and repair and maintain equipment. We needed to activate the street-sweeper to help prepare for the parade and run routes, as well as helping to clear intakes and clean up debris in the streets.

Operation and Maintenance of Drinking Water and Wastewater Disposal Systems

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. Please refer to the below reports for the last two months from Water Operations.

The wastewater collection, pumping, treatment, and disposal systems are operating well, thanks to the excellent work of Tim Herbers and JoAnn Woodward, with help from Joe. Please refer to the below report for last month from Wastewater Operations.

National Engineers Week

The library reported we had 27 people show up for our EWeek event. You could see the ‘gears turning’ in the heads of the aspiring young engineers as they modified their structure designs to withstand the simulated earthquake. It was a lot of fun!

Status of Improvement Projects – ‘In-House Design’

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

Grant application for up to \$25,000 was submitted to RPA 8 last Thursday.

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

Design consultant (Gigantic) has finalized proof for signs along US 52 which. Working on dimensioning and production estimates.

Hwy 52/136 Manhole Replacement at 2nd Avenue (Added November, 2021)

It was determined that moving this manhole out of the center of the highway was going to be too expensive. The best solution is to simply replace the manhole with a new one. We are awaiting a quote to have this work done.

Downtown Businesses Accessibility – (Added June, 2021)

Working toward including recommendations into the sidewalk program.

Legacy Square – Stage (Added Spring 2021)

Project is set to be constructed this spring.

Status of Improvement Projects – ‘Outside Design’

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

Draft plans and specs for Contract B (RISE) were submitted to the City of Dyersville and DEDC for review in November. **After minor revisions, plans will be submitted to Iowa DOT for a 30 day review.** Local bid date is anticipated to be in **April**. Construction could begin in **June**. Completion is set for October 2023. Origin will provide and administer construction admin and observation as required during construction.

1st Avenue Bridge – Repair or Replacement (Added May, 2022)

Design is in-process.

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)

Contract B Water Main construction is wrapping up. Construction will be starting in March or April on Contract C Water Pumping Station. Construction for Contract D Lift Station and Linear Sewer Onsite is underway. Work has started on the Sanitary Sewer and Force Main (EDA Contract). Contract E has been awarded to Top Grade Excavating and they anticipate starting construction the 1st quarter of 2023.

Heritage Trail Pavement Extension (Added to list January, 2020)

Preconstruction meeting **was held in late February**. Anticipate construction beginning in April and lasting through May.

Bear Creek Restoration (SRF Sponsored Project)

The Contractor will perform summer mowing and vegetation management in 2022 and 2023 for maintenance. Typical prairie seeding takes 3 years to be fully established with intended growth of flowers and grasses. A video camera is mounted near 3rd St. with a public video link for anyone to monitor.

<https://www.senserashsystems.com/public/embed/M78018326A93>

Respectfully submitted,

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

Email: jwandsnider@cityofdyersville.com cell: 563-587-9131

Memorandum

To: Mayor, City Council Members and City Administrator
From: Terry Recker, Water Operator
Date: February 2nd 2023
Subject: **Water Operation January 2023 Report**

Water Pumped

Total Water Pumped for Month	10,598,000 Gallons
Average Pumped per Day	342,000 Gallons
Maximum Daily Pumped	403,000 Gallons

Chlorine Testing

Average Free Chlorine in the System –	2.04 mg/l
Average total Chlorine in the System -	2.14 mg/l

Polyphosphate

Average Residual at Well #4	1.16 mg/l
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Water Call Outs

1 for the month
Total for the year – 4

Water Main Breaks

1 for the month
Total for the year – 2

Water Activities

22- Line Locates Completed
21-Water Work Orders Completed

Operations and Maintenance

Bacteria samples were taken, and 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.

Water Operator,
Terry Recker

Memorandum

To: Mayor, City Council Members and City Administrator
From: Terry Recker, Water Operator
Date: March 9th, 2023
Subject: **Water Operation February 2023 Report**

Water Pumped

Total Water Pumped for Month	9,176,000 Gallons
Average Pumped per Day	328,000 Gallons
Maximum Daily Pumped	417,000 Gallons

Chlorine Testing

Average Free Chlorine in the System –	2.08 mg/l
Average total Chlorine in the System -	2.14 mg/l

Polyphosphate

Average Residual at Well #4	1.08 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

13- Line Locates Completed
20-Water Work Orders Completed

Operations and Maintenance

Bacteria samples were taken, and 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. I have been working with John, Tim, and staff at Cartegraph on adding the maintenance piece to the operating system. This will give us the ability to record the maintenance on individual pumps, motors, and blowers at each building facility in Cartegraph.

Water Operator,
Terry Recker

Memorandum

To: Mayor, City Council Members and City Administrator
From: Wastewater Operator
Date: 3/13/23
Subject: **Wastewater Operations –**

Influent Flows

Total Treated for Month 15,143,000 Gallons
Average Flow per Day 540,000 Gallons
Maximum Daily Flow 1,483,000 Gallons
Average Influent Biochemical Oxygen Demand 238 mg/l
Plant loading pounds per day of 1037 lbs. plant design loading 2400 lbs. per day
Average Influent Total Suspended Solids 262 mg/l.
Plant loading pounds per day 1136 lbs. plant design loading 3600 lbs. per day.
Average Influent Total Nitrogen 42 mg/l
Plant loading pounds per day 187 lbs.
Average Influent Phosphorous 7.6 mg/l.
Plant loading pounds per day 33 lbs.

Effluent Testing

C.B.O.D. Monthly Average	1.75 mg/l	Limit - 25 mg/l
T.S.S. Monthly Average	3.75 mg/l	Limit - 30 mg/l
Ammonia Monthly Average	.18 mg/l	Limit - 16 mg/l
Total Nitrogen	40 lbs. per day	Limit- 88lbs. per day
Phosphorus	3.4 lbs. per day	Limit- 24lbs. per day
E-coli	mg/l	Limit 126 MPN

Total Nitrogen and Phosphorus are an annual average.

Sewer Call Outs – 3 for the month at the Treatment Plant.
Total for the year – 4

Routine Winter maintenance. Getting things ready for spring.