

To: Mayor Jacque and City Council Members
Cc: Mick Michel, City Administrator
From: John F. Wandsnider, PE – Public Works Director/City Engineer
Date: June 14, 2023
Subject: Public Works Report: May 10 – June 13, 2023

Things have been operating well, for the most part, over the last month or so in the Public Works Department. Also, with the onset of favorable weather, construction season has ramped up, and a lot of progress is being made on improvements.

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

Mike Maahs and TJ Vorwald continue to do an excellent job with the streets, parks, and equipment. They have been busy this month with street-sweeping in preparation for the many summertime activities that occur in Dyersville. The entire city was swept this month. Our goal is to sweep the complete town about 6 times a year. The downtown area is normally swept once a month through spring, summer, and fall.

Public Works staff has been helping Parks and Rec with a number of improvements as well as other items to prepare for tournaments and get other facilities ready. Parks and FEMA Buyout properties were sprayed for weeds. The weeds along the creeks and rivers were safely sprayed again this year by the licensed and certified specialist that we contract with. This is required at least twice a year to stay ahead of the weeds.

The third part-time summer helper began work last week. Public Works and Parks & Rec shares them in the street, parks, water, and sewer departments. Part-time summer employees work out great and help us to get more caught-up on various projects with the ever-increasing workload we encounter each year.

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. They have been working to maintain the system, including flushing fire hydrants and exercising water valves. The swimming pool was made ready in time for use as well.

They have also been working on our many various electrical and communications repairs and improvements throughout town. This includes the work related to the Legacy Square project. We are fortunate to have the electrical expertise that we have. With the help of volunteer, Tim Fitzgerald, we were able to install all the electrical infrastructure necessary to provide for a considerable amount of available power at the new stage, and have it done in time for our first Downtown Summer Night of the summer.

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 and JoAnn Woodward, with help from Joe. Wastewater operators has made good progress on the cleaning of our sanitary sewer collection system with the rented jetter/vac-truck. We will continue to clean sewers in the southwest part of town until the end of the month. We have a good inventory of mulch and compost at the WWTF.

We have had a number of projects progressing in Wastewater over the last month. Our West Linden Lift Station upgrade was completed last week. This required that the lift station be taken off-line in order to dismantle some of the inner workings and structure to set the new pumps. Taking the lift station offline meant that we had to set up a bypass system to provide for the wastewater stream that never stops. We used a couple of our mobile pumps in

upstream manholes and pumped around the station into the existing force main piping. We had to notify the surrounding property owners to make them aware of the temporary pumps that would likely be running through the night in their neighborhood. I am impressed with Tim and JoAnn for thinking through this and setting it up, along with obtaining permission from nearby property owners.

The below pictures show the bypass operation for one of the pumps. The green hose draws the wastewater out of one of the upstream manholes, and the blue hose transmits the ‘liquid’ around the back of a house (avoiding the driveway), eventually connecting directly into the force main (see map on WW report, last page).





Please refer to the below report for last month from Wastewater Operations, which also includes a map of the primary bypass operation.

Status of Improvement Projects – ‘In-House Design’

Downtown Streetscape Rehabilitation (Added April, 2023)

I have begun working on plans/specifications and working with contractors to develop a program using operations funds to rehabilitate the downtown streetscape sidewalks and pavements over the next few years. I know the guy who designed it pretty well, and I expect him to be quite helpful.

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

Grant application for up to \$25,000 was submitted to RPA 8. **We were told we can expect to hear the results “later this month”.**

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

We anticipate that we will be able to begin installation of the wayfinding signs this month. Delivery of the sign posts and hardware is expected next week and we expect to take delivery of some of the signs soon.

Hwy 52 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. I met with the Iowa DOT and the contractor to work out the details of what will be needed in order to obtain the permit. Traffic control, interaction with the railroad, and pavement replacement specifications are going to be key. **This work is planned for August or September.**

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)

Public Hearing on the plans is planned for Monday.

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.

Heritage Trail Pavement Extension (Added to list January 2020)

Origin Design is working on final closeout.

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

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

Memorandum

To: Mayor, City Council Members and City Administrator
From: Terry Recker, Water Operator
Date: May 8th, 2023
Subject: **Water Operation April 2023 Report**

Water Pumped

| | |
|------------------------------|--------------------|
| Total Water Pumped for Month | 10,241,000 Gallons |
| Average Pumped per Day | 341,000 Gallons |
| Maximum Daily Pumped | 496,000 Gallons |

Chlorine Testing

| | |
|--|-----------|
| Average Free Chlorine in the System – | 1.85 mg/l |
| Average total Chlorine in the System - | 1.95 mg/l |

Polyphosphate

| | |
|--------------------------------|-----------|
| Average Residual at Well #4 | 0.71 mg/l |
|--------------------------------|-----------|

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

98- Line Locates Completed
39-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. Joe and I started to get the pool ready for the season. We replaced the old water features pump with a new one which required re-piping the water lines and upgrading the electrical to the motor. The new features should be installed before opening on Memorial Day weekend.

Water Operator,
Terry Recker

Memorandum

To: Mayor, City Council Members and City Administrator
From: Wastewater Operator
Date: 6/12/2023
Subject: **Wastewater Operations –**

Influent Flows

Total Treated for Month 13,214,000 Gallons
Average Flow per Day 426,000 Gallons
Maximum Daily Flow 571,000 Gallons
Average Influent Biochemical Oxygen Demand 447 mg/l
Plant loading pounds per day of 1678 lbs. plant design loading 2400 lbs. per day
Average Influent Total Suspended Solids 658 mg/l.
Plant loading pounds per day 2436 lbs. plant design loading 3600 lbs. per day.
Average Influent Total Nitrogen 31 mg/l
Plant loading pounds per day 124 lbs.
Average Influent Phosphorous 8.4 mg/l.
Plant loading pounds per day 34 lbs.

Effluent Testing

| | | |
|--------------------------|------------------|------------------------------|
| C.B.O.D. Monthly Average | 0 mg/l | Limit - 25 mg/l |
| T.S.S. Monthly Average | 1.25 mg/l | Limit - 30 mg/l |
| Ammonia Monthly Average | 0 mg/l | Limit – 5.8 mg/l |
| Total Nitrogen | 21.63lbs per day | Yearly Average 88lbs per day |
| Phosphorus | 12.29lbs per day | Yearly Average 24lbs per day |
| E-coli | NA mg/l | Limit 126 MPN |

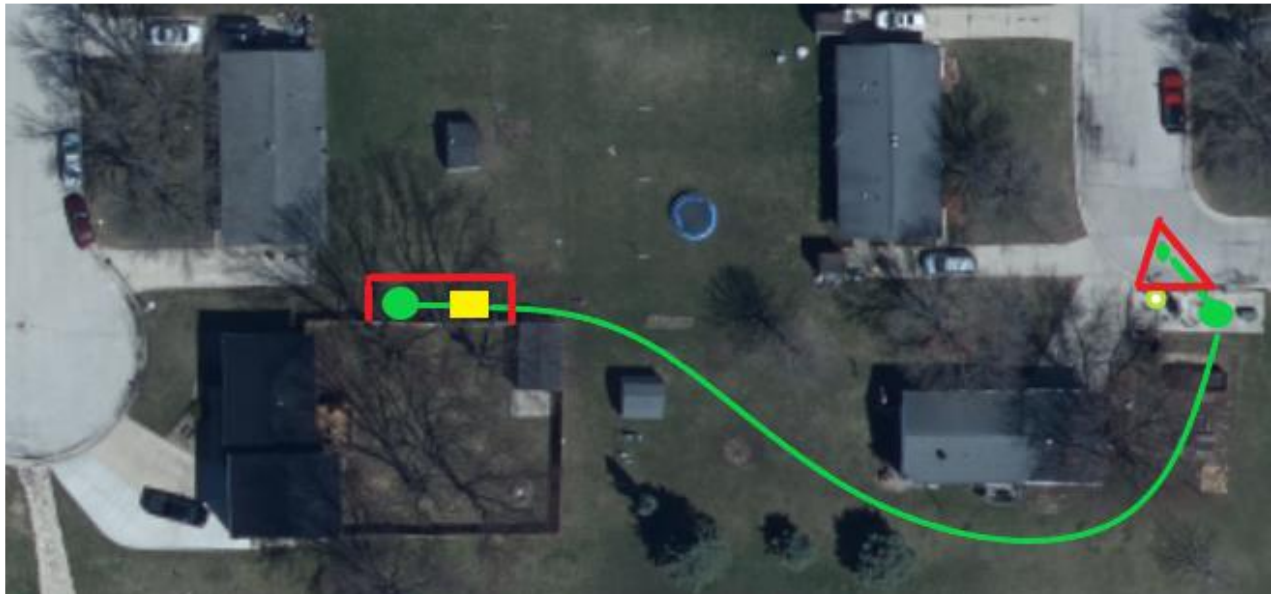
Sewer Call Outs – 1 for the month at the Treatment Plant.





Total for the year – 9

Things have been busy at waste water treatment plant this month. We picked up the sewer jetter from McQueen's the first week of May and are working on the southwest side of town. So, far we covered 37730 ft of sewer mains and 187 sewer manhole inspections. What we have been coming across is the town is growing and instead of renting the truck every other year. We are finding evidence that we are going to have to start renting the truck every year to keep up maintains on our sewer system. And we will continue to keep the truck as busy as we possible can with the month of June as the truck will be going back the first week of July.

The day finally came for the makeover at the West linden lift station. We had to setup a by-pass system that had to run through the night to keep the well dry during installation. Allied System came and jackhammered out the old ninety-degree bends and had to install new ninety bends, all new slide rails, and discharge pipes. The operator panel was complete redesigned to run the new Vaughan chopper pumps. The transitions were very successful and only had one small flaw with the control panel but they came back to fix the error. And with the old system every Monday when the water

dept back washed the removal system at well #4 RACO alarm system would call with high level warning cause the pumps could not keep up, due to their age. This week they did their backwashing with no alarms and no issues. They used to try and backwash twice a week, but we had them cut back so we would not cause issues with the old ageing pumps. Now that the new system is installed, they could go back to twice a week with no problems.



-  - 6 inch Diesel Pump
-  - Manholes
-  - Temporary Discharge hose
-  - Safety Fence