

EXECUTIVE SUMMARY OF THE
2021-22
PUBLIC WORKS DEPARTMENT
ANNUAL REPORT

Highlights of the 2021-22 fiscal year for the Public Works Department are summarized for quick review. The following report includes 8 of the 10 divisions of the Public Works Department. This executive summary is not meant to be inclusive of all activities, but rather a snapshot of the highlights over the past year. Detailed information is provided in the attached annual report.

Division 1 – Public Works Administration

Public Works Administration is responsible for coordinating and overseeing public improvement projects. Over the past year, many projects were either under construction or in the study phase. Projects include:

<u>Projects</u>	<u>Initiated</u>	<u>Finalized</u>	<u>Cost</u>
WPC Facility Improvements 2020	March 2018	not final	-
4 th St. SW & 10 th St. SW Improvements 2020	Aug. 2018	Sept. 2021	\$5,010,043
Traffic Study 2020	Sept. 2019	Dec. 2021	\$176,600
Public Services – North Addition 2021	Dec. 2019	June 2022	\$2,141,629
1 st Street NW Reconstruction 2021	July 2020	Feb. 2022	\$1,083,167
3 rd Street SE Bridge Removal 2021	July 2020	Jan. 2022	\$221,813
Cedar Lane Culvert Replacements 2021	Dec. 2020	Sept. 2022	\$312,601
Cedar Lane Reconstruction 2022	Dec. 2020	Oct. 2022	\$1,111,557
Eagle Ridge Drive & Cul-De-Sac Extension 2021	Dec. 2020	Dec. 2021	\$691,390
Bituminous Seal Coat 2021	Apr. 2021	Aug. 2021	\$186,351
Crack Cleaning and Filling 2021	Apr. 2021	Contractor no show	-
4 th Street SW Pedestrian Crossings	Jul. 2021	Dec. 2021	\$30,000
Well 5 Reconfiguration 2022	Aug. 2021	Sep. 2022	\$109,401
Downtown Alley Reconstruction 2022	Jan. 2022	Jul. 2022	\$52,380
Bituminous Seal Coat 2022	Mar. 2022	Aug. 2022	\$180,943
Asphalt Patching Spring 2022	April 2022	June 2022	\$17,478

Total value of work **finalized** between July 2021 thru June 2022 **\$ 390,202**

Following the completion of the Public Services North Addition project, the community was invited to tour the Public Services campus. Tours were offered by all division leaders and featured the facility and equipment. The public response was very positive.

Public Works Administration is also responsible for coordinating and overseeing the general operations and budgets of 8 of the 10 Public Works divisions. Division leaders are responsible for the daily operations and report to the Director of Public Works. 2020-21 actual and 2021-22 budgeted division expenditures were:

Division	2020-21 Actual	2021-22 Budget
Public Works Administration	\$ 383,069	\$ 365,420
General Infrastructure Maintenance	323,800	336,069
Equipment Services	360,821	334,846
Street RUT	1,232,150	1,333,084
Water (<i>Service, Misc., Int.</i>)	1,933,055	2,178,271
Water Pollution Control (<i>Service, Misc., Int.</i>)	1,129,451	1,364,775
Sewer Line Maintenance	322,218	341,352
Solid Waste	<u>1,529,165</u>	<u>2,033,159</u>
	\$ 7,213,729	\$ 8,286,976

The above table is intended to only be a snapshot. Detailed information is available in the City's FY 2021-22 annual audit.

Quarterly, a Public Works newsletter is published and mailed to all Waverly addresses. Articles highlight the services provided to the public and information on public works projects.

Division 2 – General Infrastructure Maintenance

A primary responsibility of the General Infrastructure Maintenance Division is to finance and/or inspect the following infrastructure:

- Inspect and perform routine maintenance on the dam.
- Inspect trail bridges every four years.
- Finance the USGS Cedar River Gage on Adams Parkway Bridge.
- Finance community-wide street lighting, entrance signs, and traffic signals.



Aerial photo of the dam

Division 3 – Equipment Services Division

This division is responsible for the maintenance, repairs, and replacement of over 300 pieces of equipment. A five-year equipment replacement schedule forecast is maintained allowing for the timely and economical replacement of vehicles and major items of equipment.

Looking to the Future:

- Work to utilize the new fleet management information system to the fullest.
- On-board a 3rd full-time mechanic to assist in the maintenance of the growing fleet.

Division 4 – Street - RUT Division

The Street Division maintains approximately 70 miles of primary streets, 10 miles of gravel roads and alleys, and numerous municipal-owned parking lots. There are 7.0 miles of state roads through Waverly. In the fiscal year 2021-22, the City officially added .36 miles of streets. The actual number of miles of city, county, and state roadways was last recalculated in September 2006.

This year the City contracted seal coating of an estimated 110 blocks. The goal is to cover the entire City every 7 years which is the average life of a seal coat. City crews asphalt surface patch in advance of seal coating.

Maintenance efforts are focused on asphalt patching, seal coating, street sweeping, sign maintenance, aggregate shoulder and alley maintenance, painting pavement markings, intake repairs and manhole adjustments. Snow removal becomes the primary focus in the winter months.



Photo of the Public Services North Addition

The Street Division relocated to the new Public Services North Addition in early January of 2022 allowing space for Water and Sewer Line Maintenance Divisions to move to the Public Services Center for Operations and Disaster Response.

Looking to the Future

- Intake reconstruction project to address failing infrastructure.

Division 5 – Water Division

The Water Division continues to monitor water quality and perform routine maintenance on valves, hydrants, and water main leaks. The Water Division performed 1,580 Iowa One-Call locates for water mains, sanitary sewers, and storm sewers.

On average 928,416 gallons of water per day were pumped with 81.8% of it accounted for through customer billing. A leak detection program has helped reduce the unaccounted water by identifying targeted repair work. This year we were able to reach our goal of having over 80% accountability for the water pumped into the water distribution system.

In December of 2021, the City completed the Whitetail Bluff Addition located in north Waverly adjacent to Adams Parkway and the Cedar River between Carey Elementary School and Waverly Utilities. This project resulted in the addition of approximately 2,365 linear feet of new water main.

In January of 2022, the Water and Line Maintenance Divisions relocated to the newly expanded Public Services Center for Operations and Disaster Response building.

Looking to the Future

- Elimination of dead-end water mains to improve water quality and reliability, IDNR and USEPA regulation education on safe drinking water, public water conservation education, and the development of a program to eliminate lead lines are some of the Water Division's projects for the future.



Water Division responds to a water main leak.

Division 6 – Water Pollution Control

In March 2018 WHKS & Co. was hired to develop and design the wastewater treatment improvements as described in the Engineer's Report for Nutrient Reduction Strategy dated December 7, 2016. Improvements include the construction of an oxidation ditch system, main lift station improvements, primary clarifier improvements, demolition of trickling filter and RBCs, conversion of the intermediate clarifier to a fourth final clarifier, installation of a chemical feed system to supplement phosphorus removal, biosolids storage improvements, and associated site work.



Aerial photo of the WPC Facility project in progress.

Looking to the Future

- Complete WPC Facility Improvements by the end of 2023.
- Optimize the new oxidation ditch to run as efficiently as possible.

Division 7 – Storm & Sanitary Sewer Line Maintenance Division

This division continued to primarily maintain, clean, and televise sanitary and storm sewer lines. Additional work included repair of sewer mains, water leak repairs, and drainage way cleaning.

The updated Sanitary Sewer Capacity Analysis was completed in January 2020 and helps identify weaknesses within the existing system and the impact of future development on the system. The report determined that there are no “fatal flaws” within the existing system, but there are areas of concern identified for future upgrades.

In January of 2022, Line Maintenance and Water Divisions relocated to the newly expanded Public Services Center for Operations and Disaster Response building (pictured below).



Looking to the Future

- Update sanitary and storm sewer GIS mapping as more discrepancies are found; including improving records of all sewer mains.
- Continue work on storm sewer intakes and catch basins and replace old brick structures with poured concrete structures.
- Concentrate on televising the sewer lines in Eastgate and Monaghan subdivisions.
- Maintain a five-year sanitary sewer cleaning schedule.

Division 8 - Solid Waste/Recycling Division

Solid waste operations include daily residential and commercial refuse collection routes, bi-weekly curbside recycling routes, and a weekly Wednesday corrugated route. Seasonal collections include spring special collection weeks of yard waste and bulky items, fall leaf collection weeks, and holiday tree collection weeks. Other services include special pickup of bulky items and temporary dumpster rental service. There are six full-time refuse collectors, 4 part-time recycling center staff, and 4 seasonal yard waste staff.

All solid waste collected is taken to the Black Hawk County Landfill. Their rate is \$42.25 per ton again this year.

In May of 2022, the City entered an agreement with Republic Services for commingled recycled materials in hopes to reduce recycling costs by following the fair market values. During the first 5 months of this agreement, the market value was high, resulting in rebates to the City.

The Yard Waste Site and Recycling Center remain very active. However, usage has decreased some in the past two years. It is likely that this decreased usage is partially due to Covid.



A new automated residential refuse truck introduced to fleet in 2022. The truck that it replaced is now used for the curbside recycling routes making all the City's refuse trucks automated.

Looking to the Future

- Work to provide more efficient day-to-day operations

Division 9 – Engineering Division

Please refer to the separate Engineering Annual Report.

Division 10 – Waverly Municipal Airport

Please refer to the separate Airport Annual Report.

Conclusion

As a department, we continue to strive for excellence in community service and efficiency of operations. In the coming years, we hope to see infrastructure and operational recommendations implemented to better serve the citizens of Waverly, our customers, and to meet the needs of a growing community.

Respectfully submitted,

Justin McGlaun
Director Public Works

City of Waverly
Department of Public Works
FY 2021-22

ADMINISTRATION

The Administration consists of the Director, the Specialist, and the Office Coordinator. The major functions related to Administration are the direction of present and future work programs, budget preparation and control, centralized record maintenance, inter/intra departmental coordination, billing and purchasing, and problem-solving relevant to personnel and public relations. All these areas relate to the ten Divisions of the Public Works Department (Administration, Engineering, General Infrastructure Maintenance, Equipment Services, Streets-RUT, Airport, Water, Water Pollution Control, Storm & Sanitary Sewer Line Maintenance, & Solid Waste).

We utilize the City's website (www.waverlyia.com), newsletters, Facebook, Cable 82 TV announcements, newspaper articles and releases, radio announcements, and personal communication to inform the citizens of Waverly pertaining to the work performed by our department, when and where the work is to be accomplished, and the priorities with which work will be performed.

City of Waverly
Department of Public Works
FY 2021-22

GENERAL INFRASTRUCTURE MAINTENANCE

A primary responsibility of the General Infrastructure Maintenance Division is to finance and/or inspect the following infrastructure:

- Inspect and perform routine maintenance on the dam.
- Pay for traffic signal maintenance.
- Inspect trail bridges every four years.
- Finance the USGS Cedar River Gage on Adams Parkway Bridge.
- Finance community wide street lighting, entrance signs and traffic signals.

Additionally, the local property tax support of the Waverly Municipal Airport is shown as an expense and transfer of monies to the Airport Fund.

City of Waverly
Department of Public Works
FY 2021-22

EQUIPMENT SERVICES

The Equipment Services Division is responsible for over 300 City vehicles and assets. Primary responsibilities include equipment repair and maintenance, parts purchasing and stock, welding, fabrication, and work order reporting. This division also prepares specifications and bid documents for the purchasing of new equipment and vehicles and the sale of used equipment and vehicles.

CURRENT PROJECTS:

1. Implementation of a new fleet management information system.
2. Resurface the equipment services shop floor.

FUTURE PROJECTS:

1. Onboarding an additional mechanic to meet skilled staffing needs allowing the more experienced mechanics to focus on the more complex jobs.

AREAS OF CONCERN:

1. Cost and availability of equipment, vehicles, and parts that are required for City operations.

City of Waverly
Department of Public Works
 FY2021-22

EQUIPMENT SERVICES

The Equipment Services Division is responsible for routine maintenance and repairs for City vehicles; purchases parts utilized and inventoried for vehicles; and performs welding or fabrications that may be needed.

Equipment Services also prepares the specifications and bid documents for the purchasing of new equipment and vehicles and the sale of used equipment and vehicles.

Vehicle Repairs

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Service Jobs	676	597	386	561	727	853
New Tires	94	101	102	115	130	103
Tire Repairs	49	40	30	32	46	36
Batteries	30	15	12	18	18	22
Antifreeze (Gals)	67	35	26	20	25	44
Oil Changes	198	148	117	102	193	196
Oil (Gals)	496	504	638	667	699	852
Total Parts (\$)	\$115,810	\$ 96,052	\$ 99,832	\$103,337	\$130,882	\$138,090
Total Labor Charged	\$ 52,308	\$ 51,770	\$ 55,864	\$ 54,362	\$ 68,794	\$ 68,388

Fuel Purchased

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Unleaded Fuel (Gals)	22,988	21,010	25,936	26,833	26,169	27,563
Unleaded Fuel (\$)	\$ 47,099	\$ 59,116	\$ 66,793	\$ 63,161	\$ 64,755	\$100,305
Diesel Fuel (Gals)	45,910	41,791	46,500	44,026	44,453	42,189
Diesel Fuel (\$)	\$101,284	\$ 123,358	\$140,020	\$119,452	\$116,314	\$167,266

City of Waverly - Public Works
 Equipment Services
Vehicles & Equipment Purchased
 FY 2021-22

Department / Division	Vehicle or Equipment Purchased & Make / Model	Bid Date	Low Bidder	Low Bid \$	Trade-In \$	Net Bid \$	Trade-In	Date Received
Public Works / Water	22 Ford F150 Pickup	10/19/2021	Roling Ford	\$34,644		\$34,644	no trade	4/6/2022
Public Works / Street-RUT	Kage Snowstorm Snow Pusher	10/5/2021	Star Equipment	\$18,485		\$18,485	no trade	12/10/2021
Public Works / Street-RUT	Sweepster Hydraulic Angle		Star Equipment	\$8,090		\$8,090	no trade	12/10/2021
Public Works / Sewer	IBAK T66 Sewer Camera System with Trailer		Mid-Iowa Solid Waste Equipment	\$77,221		\$77,221	no trade	10/11/2021
Public Works / Engineering	2022 Ford F150 Pickup	12/7/2021	Roling Ford	\$31,000		\$31,000	no trade	3/24/2022
Public Works / Street-RUT	Line Lazer 5900 Street Paint Machine		Diamond Vogel	\$7,962		\$7,962	no trade	7/7/2021

Sale of Used City Vehicles & Equipment

FY 2021-22

Division	Vehicles or Equipment Sold	Bid Date	Winning Bidder	Bid \$
Water	Wachs Valve Turner	09/09/21	Darrel Anderson	\$250
Streets	7' Green Step Ladder	06/24/22	Mark Leisinger	\$16
Streets	7' Yellow Step Ladder	06/24/22	Mark Leisinger	\$16
Streets	25' Aluminum Extension Ladder	06/24/22	Rick Fischer	\$22.50
Water	Cabinet	06/24/22	Mike Seehusen	\$20
Streets	Demolition Saw	06/24/22	Rick Fischer	\$43.20
Water	2011 Ford F150	06/24/22	Michael Hellman	\$11,000
Streets	Forklift Fork (Bent)	06/24/22	Rick Fischer	\$17.25
Water	Refrigerator	06/24/22	Mike Seehusen	\$20
Streets	Generator	06/24/22	Rick Fischer	\$43.15
Water	Hotsey Pressure Washer	06/24/22	Ron Milius	\$631.75
Streets	Hydraulic Winch (not-working)	06/24/22	Rick Fischer	\$32.50

**EQUIPMENT SERVICES MONTHLY REPORT
(WORKSHEET FOR ANNUAL REPORT)**

	2022						2021						TOTALS
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	
Service Jobs	95	69	85	65	67	57	74	74	75	55	66	71	853
Oil Changes	20	12	15	15	19	13	20	21	19	16	11	15	196
Tire Repairs	2	4	5	1	3	1	7	3	2	2	4	2	36
Batteries	4	1	7	1	4			2				3	22
New Tires	2	4	12	8	10	5	17	11	4	12	16	2	103
Antifreeze (Gals)	2	4	3	4	2	1	3	2	1	8	7	7	44
Oil (Gals)	54	49	92	50	136	30	45	196	60	65	32	43	852
Total Parts (\$)	\$ 10,941	\$ 8,154	\$ 17,224	\$ 13,562	\$ 9,043	\$ 12,500	\$ 14,627	\$ 11,349	\$ 13,689	\$ 9,856	\$ 11,269	\$ 5,875	\$ 138,090
Total Labor (\$)	\$ 7,273	\$ 4,921	\$ 8,004	\$ 6,476	\$ 3,981	\$ 6,541	\$ 4,675	\$ 6,301	\$ 5,494	\$ 4,975	\$ 5,094	\$ 4,652	\$ 68,388

FUEL PURCHASED

	2022						2021						TOTALS
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	
Unleaded Fuel (Gals)	2,255	1,999	2,402	1,505	2,600	2,715	2,673	2,563	2,187	2,406	2,132	2,126	27,563
Unleaded Fuel (\$)	\$7,190	\$6,755	\$9,546	\$8,707	\$11,039	\$ 12,964	\$ 8,215	\$ 7,933	\$ 6,754	\$ 7,580	\$ 6,964	\$ 6,658	\$ 100,305
Diesel Fuel (Gals)	3,707	3,045	3,452	3,293	3,787	3,419	3,035	3,902	3,727	3,918	3,355	3,549	42,189
Diesel Fuel (\$)	\$12,880	\$11,286	\$16,746	\$15,938	\$20,077	\$ 18,818	\$ 10,551	\$ 12,338	\$ 11,780	\$ 13,380	\$ 11,789	\$ 11,683	\$ 167,266

City of Waverly
Department of Public Works
FY 2021-22

STREETS - RUT

The Street Division maintains approximately 70 miles of primary streets, 10 miles of gravel roads and alleys, and numerous municipal-owned parking lots. Primary operations include concrete repair, line painting, street sign maintenance and replacement, street sweeping, shoulder repair, and snow removal. In addition, annual seal coat projects are scheduled to extend the life and quality of streets.

CURRENT PROJECTS:

1. Continue to upgrade street signs to current standards.
2. Continue updating traffic signal hardware.
3. Continue work to reduce maintenance on hills and problem areas

FUTURE PROJECTS:

1. Intake reconstruction project to address failing infrastructure.

AREAS OF CONCERN

1. 3rd Ave NE reconstruction

City of Waverly - Public Works
Streets - RUT
Work Hours Per Core Services
FY 2021-22

<u>Streets</u>	<u>Hours</u>
Shoulder Work/Recon	<u>2,147</u>
Road Grading	<u>98</u>
Alleys	<u>56</u>
Cold Mix Patching / Durapatching	<u>632</u>
Street Sweeping	<u>1,081</u>
Weed Mowing / Tree Trimming	<u>106</u>
Rock / Chips Hauling	<u>188</u>

<u>Painting</u>	<u>Hours</u>
Line Striping, Curbs & X-Walks	<u>596</u>
<u>Snow Removal</u>	
Sand Hauling	<u>25</u>
Snow Fence	<u>94</u>
Snow Plowing	<u>175</u>
Snow Removal	<u>424</u>
Sanding	<u>268</u>

<u>Maintenance</u>	
Catch Basins	<u>158</u>
Bridges	<u> </u>
Culverts	<u> </u>
Manholes	<u>44</u>
Dry Run	<u> </u>
Building Maintenance	<u>606.5</u>
Equipment Maintenance	<u>1013.1</u>

<u>Signs</u>	
Repair &/or Replace	<u>133</u>
New Installations	<u>115</u>
<u>Special Projects</u>	
Airport	<u>24</u>
Yard Waste	<u>153</u>
Spring Clean-up & Fall & Winter Clean-up	<u>126</u>
Mulch & Compost Deliveries	<u>25</u>
Water Dept	<u>16</u>
Solid Waste Dept	<u>868</u>
Sewer Maintenance	<u>4</u>
WPC Dept	<u>3</u>
Recycling Center	<u>5</u>
Cemetery Dept	<u> </u>
Parks / Golf	<u>102</u>
Equip Services	<u> </u>
Hospital	<u> </u>
Meetings / Training	<u>27</u>

City of Waverly - Public Works
Streets - RUT
Street Maintenance & Construction
2021-22

MATERIAL COMPARISON REPORT

Fiscal Year	2017-18	2018-19	2019-20	2020-21	2021-22
Asphalt Patch					
Tons	154	161	192	79	167
Average Cost per ton	\$107.69	\$113.66	\$117.00	\$110.80	\$118.46
Total Cost (\$)	\$16,585	\$18,300	\$22,464	\$8,753	\$19,782
Road Rock					
Tons	254	994	1,147	373	702
Average Cost per ton	\$9.35	\$9.50	\$9.70	\$9.88	\$9.96
Total Cost (\$)	\$2,375	\$9,446	\$11,123	\$3,686	\$6,994
3/8" Chips					
Tons	173	64	151	96	27
Average Cost per ton	\$12.17	\$12.42	\$9.95	\$13.10	\$13.30
Total Cost (\$)	\$2,106	\$795	\$1,502	\$1,258	\$359
CRS-2 Oil					
Gallons	5,474	1,665	3,308	2,492	837
Average Cost per gal	\$1.47	\$1.90	\$1.80	\$1.80	\$2.50
Total Cost (\$)	\$8,072	\$3,163	\$5,956	\$4,486	\$2,092

STREET MAINTENANCE (BLOCKS)

Fiscal Year	2016-17	2017-18	2018-19	2019-20	2021-22
Single Seal Coat (Bid)	100	125	60	53	110
Double Seal Coat	0	1	0	0	0
Slurry Seal Coat	8	21.6	10	7	0

STREET RECONSTRUCTION

	Linear Feet	Miles
2016-17		
16th Street SW (4th Ave. SW to Meadow View)	1,420	0.27
2017-18		
no street project	0	0
2018-19		
no street project	0	0
2019-20		
Cedar Lane (2nd Ave. NE to Brown Lane)	4,814	0.91
2021-22		
1st St NW (W Bremer Ave to 5th Ave NW)	1,672	0.32

Note: The 20th St. NW Reconstruction - Ph. 1 RR Crossing Improvements at 20th St. NW & 5th Ave. NW 2018 - project has not yet been finalized (1,100 LF)

NEW STREET CONSTRUCTION

	Linear Feet	Miles
2015-16		
Cedar River Parkway (4th St. SW to 8th Street SW)	4,456	0.84
2019-20		
Cedar River Parkway (8th Street SW to E. Bremer)	5,721	1.08
2021-22		
Whitetail Bluff	1,901	0.36

Note: Whitetail Bluff subdivision started street construction in 2020.

SNOW REMOVAL MATERIAL COMPARISON

Fiscal Year	2017-18	2018-19	2019-20	2020-21	2021-22
Rock Salt					
Tons	821	852	729	805	959
Average Cost per ton	\$74.51	\$81.42	\$88.06	\$76.50	\$87.27
Cost (\$)	\$61,172	\$69,367	\$64,195	\$61,582	\$83,689
Ice Sand					
Tons	30	8	120	7	14
Average Cost per ton	\$9.00	\$23.50	\$9.02	\$25.00	\$25.00
Cost (\$)	\$270	\$188	\$1,082	\$175	\$350

City of Waverly
Department of Public Works
FY 2021-22

WATER

The Water Division is responsible for the operation and maintenance of the total water system including wells, towers, piping, pumps, controls, hydrants, and other equipment within the City of Waverly. This division performs or provides programs as follows: replacement of older system valves and hydrants, valve box raising and replacement, valve turning, hydrant flushing and flow testing, water main repair, water main testing and installation, water quality testing, answers customer complaints on taste, smell, usage, or questions regarding water quality as per articles that appear in the newspapers.

The Water Division supplies water to Waverly residents and industry utilizing four wells, three towers, and approximately 76 miles of water main. This includes 737 fire hydrants, 1451 water main valves, over 562 hydrant valves, and 4,391 meters. The pumping capacity of the system is approximately 5,300 gallons per minute and total storage of 1,750,000 gallons elevated. The average daily pumpage for FY 2021-22 was 928,416 gallons per day.

During FY 2021-22, the Water Division continued to locate and correct water leaks. Our billing to pumpage accountability has been calculated at 81.8%, this is a great improvement on prior years.

FUTURE PROJECTS

1. Work on the elimination of dead-end water mains to improve water quality, redundancy and overall reliability.
2. Continue education on the ever-changing regulations set forth by the IDNR and USEPA to insure a safe drinking water system.
3. Continue with the Source Water Protection Plan to reduce or eliminate certain contaminants from entering our ground water source and to educate the public on the importance of such a plan.
4. Develop a lead service line inventory and work on programs to encourage the elimination of lead service lines.
5. Develop programs to educate the public on water conservation and accountability.

City of Waverly - Public Works
 Water
Core Services
 FY 2021-22

Water Meters	Totals
New Meter Installations	49
Meters Replaced	34
Seasonal In	35
Seasonal Out	44
ERTs	52
Meters Tested & Repaired	35
Hyd. Meters / Hose Bib Meter	62

Water Service Lines	Totals
Capped Services	4
Service Line Taps	0
Sound Detection	38

Water Mains	Totals
Repaired	28
Replaced	2
Sound Detection	20
Large Taps (4"-6"-8")	0

Water Valves	Totals
Valves Operated	115
Valves Installed	5
Valves Repaired	1
Valves Replaced	2

Water Valve Boxes	Totals
Boxes Repaired	25
Boxes Installed	6
Boxes Cleaned	65
Boxes Raised	12
Boxes Lowered	8

Hydrants	Totals
Flushed	290
Repaired	200
Replaced	0
Installed	0
Painted	70
Flagged	3

Water Towers	Visits
Interior	97
Exterior	97
Exterior Maintenance (hours)	12

Wells	Visits
Interior	1,120
Exterior	1,120
Exterior Maintenance (hours)	12

Other Projects	Total
Contractors	243
Other City Departments	299

Number of Locates	Totals
Iowa One Call Tickets	1,580
Structures Located from IOC Tickets	5,210
Responses Entered	1,580

Number of Samples Taken	Totals
Bacteria	127
Chlorine	2,820
Fluoride	1,580
Nitrate	220

City of Waverly - Public Works
Water

Operational Data & Gallons Pumped

FY 2021-22

Operational Data for Water System Repairs

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Main Lines	12	24	14	12	16	28
Service Lines	13	32	11	4	5	5
4" Valves Installed	1	2	2	1	1	1
6" Valves Installed	1	1	1	2	1	1
8" Valves Installed	1	1	0	0	2	2
12" Valves Installed	0	0	0	0	0	0
Service Lines Capped	4	6	3	3	2	2
3/4" Taps Made	5	2	2	2	0	0
1"-2" Taps Made	15	30	3	1	0	0
4" Taps Made	0	0	0	0	0	0
6" Taps Made	5	0	0	0	0	0
8" Taps Made	4	0	0	0	0	0

Gallons Pumped Versus Gallons Billed

	Gallons Pumped	Estimated Unmetered Gallons*	Gallons Billed	Percent Accountable
2021-22	338,991,000	11,030,000	266,292,000	81%
2020-21	384,774,000	16,065,000	268,223,000	74%
2019-20	349,624,000	9,521,000	250,099,000	74%
2018-19	341,884,000	13,058,000	243,332,000	75%
2017-18	358,615,000	19,588,000	250,852,000	75%
2016-17	356,489,000	46,187,000	247,064,000	82%

* Estimated Unmetered Gallons are for hydrant flushing, watermain flushing, sewer jet machine, street sweeper, Fire Department, water leaks, etc.

Water Consumption

City Consumption Gallons	4,196,000
Highest Pumping Day	1,496,000
Lowest Pumping Day	519,000
Average Pumping Day	928,416
Total Gallons Pumped	338,991,000

City of Waverly
Department of Public Works
FY 2021-22

WATER POLLUTION CONTROL

The Water Pollution Control Division operates and maintains the wastewater treatment facilities for the City. These facilities are the treatment plant, main lift station, and nine smaller lift stations. The testing and monitoring of industrial discharges plus disposal of biosolids are also the responsibility of the WPC Division. The efficient operation and maintenance of these facilities are required by permits and monitored by State and Federal agencies, DNR and EPA. The daily average treatment of wastewater for fiscal year 2021-22 was 1,154,400 gallons.

The WPC Facility and staff conducted several tours throughout the school year to elementary, high school, and Wartburg College classes. Staff has also made classroom or site presentations to different classes or interested groups.

This completes a brief overview of the past fiscal year. Although not a complete summary, it does not represent the knowledge and expertise needed to operate and maintain an efficient WPC Facility. It is our method of recycling the very precious resource of water. This is one reason that some cities are referring to their waste treatment facilities as Water Reclamation Facilities.

CURRENT PROJECTS

1. Upgrade of WPC Plant to Activated Sludge Process (from Trickling Filter/RBC Process), for Nutrient Reduction.

FUTURE PROJECTS

1. Eastgate Lift Station
2. Flow measurement at each outfall as well as influent.

PROBLEM AREAS OR AREAS OF CONCERN

1. Shortage of qualified and accessible land for biosolids application.
2. Budgets must continue to reflect the need to upgrade lift stations and aging equipment.

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: June, 2021

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD	EFF. FLOW MGD	CBOD 5 DAY 20 °C		EFF. PHOS. MG/L	EFF. PHOS. LBS/DAY	EFF. TOTAL N (as N) MG/L	EFF. TOTAL N (as N) LBS/DAY	EFF. Cu MG/L	EFF. Cu LBS/DAY	TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. ph	EFF. TEMP. °F.	E. COLI #/100 ML
				EFF. MG/L	EFF. LBS/DAY							EFF. MG/L	EFF. LBS/DAY	FINAL MG/L	FINAL LBS/DAY			
1	Tues.		1.160													8.1	60	
2	Wed.		1.110	6	56	3.49	32.31	26.3	243.47	0.0366	0.3388	12	111	<0.50	0	8.1	60	1.0
3	Thurs.		1.150													8.1	61	
4	Fri.		1.090	5	45							11	100	<0.50	0	8.1	62	
5	Sat.		1.000															
6	Sun.	0.352	0.698															
7	Mon.	0.301	0.769													8.1	63	
8	Tues.	0.245	0.805	6	40							7	47	<0.50	0	8.0	65	
9	Wed.	0.261	0.799	5	33	3.86	25.72	23.9	159.26	0.0230	0.1533	6	40	<0.50	0	7.9	65	1.0
10	Thurs.	0.274	0.836													8.0	66	
11	Fri.	0.271	0.719															
12	Sat.	0.325	0.785													8.0	65	
13	Sun.	0.191	0.629															
14	Mon.	0.276	0.664													8.0	64	
15	Tues.	0.243	0.747													8.0	65	
16	Wed.	0.266	0.704	7	41	3.69	21.67	32.9	193.17	0.0352	0.2067	9	53	<0.50	0	7.9	64	1.0
17	Thurs.	0.246	0.734													7.9	65	
18	Fri.	0.264	0.706	8	47							9	53	<0.50	0	8.0	68	
19	Sat.	0.239	0.611															
20	Sun.	0.260	0.690															
21	Mon.	0.252	0.628													8.0	64	
22	Tues.	0.257	0.673													8.1	62	
23	Wed.	0.247	0.693	7	40	3.79	21.90	29.6	171.08	0.0353	0.2040	8	46	<0.50	0	8.1	64	14.0
24	Thurs.	0.013	0.977													8.0	66	
25	Fri.		1.040	6	52							9	78	<0.50	0	7.9	67	
26	Sat.		0.900															
27	Sun.		0.970															
28	Mon.	0.186	0.854													7.8	67	
29	Tues.	0.239	0.761													8.0	67	
30	Wed.	0.258	0.762			3.67	23.32	31.7	201.46	0.0339	0.2154	10	64	<0.50	0	7.9	67	19.0

TOTAL	5.5	24.664	50.0	355		124.92		968.43		1.1182		81.0	592	0.0	0.0			36.0
AVERAGE	0.2	0.822	6.3	44		24.98		193.69		0.2236		9.0	66	<0.50	0.0	8.0	64	7.2
MAX	0.4	1.160	8.0	56		32.31		243.47		0.3388		12.0	111	<0.50	0.0	8.1	68	19.0
MIN	0.0	0.611	5.0	33		21.67		159.26		0.1533		6.0	40	<0.50	0.0	7.8	60	1.0

7 DAY AVERAGE																		
WEEK 1	0.3	0.997	5.5	50		32.31		243.47		0.3388		11.5	106	<0.50	0.0	8.1	61	1.0
WEEK 2	0.3	0.748	5.5	37		25.72		159.26		0.1533		6.5	43	<0.50	0.0	8.0	65	1.0
WEEK 3	0.3	0.689	7.5	44		21.67		193.17		0.2067		9.0	53	<0.50	0.0	8.0	65	1.0
WEEK 4	0.2	0.872	6.5	46		21.90		171.08		0.2040		8.5	62	<0.50	0.0	8.0	65	14.0

City of Waverly
MONTHLY MONITORING REPORT

Date: June, 2021

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP °F
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Tues.	1.160	96	6.85	420	2200	1.00											7.7	58
2	Wed.	1.110	96	6.91			1.05	134	1240	6.20	57.40	25.2	233.29	21.4	198.11	244	2259	7.4	56
3	Thurs.	1.150	96	6.92			1.01											7.7	59
4	Fri.	1.090	96	6.91			1.07	137	1245							242	2200	7.4	57
5	Sat.	1.000					1.16												
6	Sun.	1.050					1.11												
7	Mon.	1.070	96	6.93	413	2530	1.09											7.6	58
8	Tues.	1.050	96	6.95			1.11	184	1611							316	2767	7.4	58
9	Wed.	1.060	96	6.91			1.10	137	1211	3.91	34.57	24.8	219.24	17.4	153.82	220	1945	7.4	59
10	Thurs.	1.110	96	6.92			1.05											7.5	58
11	Fri.	0.990					1.17												
12	Sat.	1.110	97	6.91			1.05											7.6	58
13	Sun.	0.820					1.34												
14	Mon.	0.940	96	6.97	458	2750	1.22											7.5	58
15	Tues.	0.990	96	6.90			1.17											7.6	60
16	Wed.	0.970	96	6.96			1.19	273	2209	9.79	79.20	36.2	292.85	32.7	264.54	446	3608	7.3	59
17	Thurs.	0.980	96	6.96			1.18											7.5	61
18	Fri.	0.970	96	6.92			1.19	151	1222							272	2200	7.4	60
19	Sat.	0.850					1.31												
20	Sun.	0.950					1.21												
21	Mon.	0.880	96	6.93	443	2900	1.28											7.3	61
22	Tues.	0.930	97	6.95			1.23											7.5	61
23	Wed.	0.940	96	6.96			1.22	192	1505	7.23	56.68	30.2	236.76	26.3	206.18	288	2258	7.3	59
24	Thurs.	0.990	96	6.96			1.17											7.5	61
25	Fri.	1.040	96	6.94			1.12	160	1388							268	2325	7.4	61
26	Sat.	0.900					1.26												
27	Sun.	0.970					1.19												
28	Mon.	1.040	96	6.96	383	2750	1.12											7.4	62
29	Tues.	1.000	96	6.94			1.16											7.5	60
30	Wed.	1.020	96	6.91			1.14			6.57	55.89	25.5	216.92	20.3	172.69	244	2076	7.4	61

TOTAL AVERAGE	30.130					34.670	1368.0	11631		283.73		1199.06		995.34	2540.0	21637		
MAX	1.004	96.1	6.9			1.156	171.0	1454		56.75		239.81		199.07	282.2	2404	7.5	59.3
MIN	1.160	97.0	7.0			1.340	273.0	2209		79.20		292.85		264.54	446.0	3608	7.7	62.0
	0.820	96.0	6.9			1.000	134.0	1211		34.57		216.92		153.82	220.0	1945	7.3	56.0

7 DAY AVERAGE																		
WEEK 1	1.090					1.070	135.5	1243		57.40		233.29		198.11	243.0	2229	7.6	57.6
WEEK 2	1.011					1.149	160.5	1411		34.57		219.24		153.82	268.0	2356	7.5	57.6
WEEK 3	0.941					1.219	212.0	1715		79.20		292.85		264.54	359.0	2904	7.4	58.2
WEEK 4	0.973					1.187	176.0	1446		56.68		236.76		206.18	278.0	2291	7.4	60.8

Signature: _____
Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT

Date: May, 2021

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DISCHARGE SERIAL # 001 - # 002

DAY OF MONTH	DAY OF WEEK	MGD	EFF. FLOW MGD	CBOD 5 DAY 20 °C		EFF. PHOS. MG/L	EFF. PHOS. LBS/DAY	EFF. TOTAL N (as N) MG/L	EFF. TOTAL N (as N) LBS/DAY	EFF. Cu MG/L	EFF. Cu LBS/DAY	TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. ph	EFF. TEMP. °F.	E. COLI #/100 ML
				EFF. MG/L	EFF. LBS/DAY							EFF. MG/L	EFF. LBS/DAY	FINAL MG/L	FINAL LBS/DAY			
1	Sat.	0.224	0.706															
2	Sun.	0.232	0.798															
3	Mon.	0.097	0.883														7.9	60
4	Tues.		0.970	7	57							12	97	0.62	5		8.0	59
5	Wed.		0.960	10	80	4.15	33.23	36.2	289.83	0.0528	0.4227	10	80	<0.50	0		8.0	58
6	Thurs.		1.020														8.1	58
7	Fri.		0.900														8.1	56
8	Sat.		1.020															
9	Sun.		0.990															
10	Mon.		0.960														8.1	57
11	Tues.		0.980														8.0	57
12	Wed.		0.980	8	65	3.75	30.65	31.4	256.64	0.0536	0.4381	14	114	<0.50	0		8.0	58
13	Thurs.		1.020														8.0	58
14	Fri.		0.950	9	71							10	79	<0.50	0		8.0	58
15	Sat.		0.920															
16	Sun.		0.990															
17	Mon.		0.990														7.9	60
18	Tues.		1.110														8.0	61
19	Wed.		1.070	7	62	4.35	38.82	31.1	277.53	0.0376	0.3355	11	98	<0.50	0		8.0	60
20	Thurs.		1.240														8.0	61
21	Fri.		1.150	7	67							9	86	<0.50	0		8.1	62
22	Sat.		1.000															
23	Sun.		1.110															
24	Mon.		1.110														8.0	63
25	Tues.		1.140														8.1	64
26	Wed.		1.140	5	48	3.80	36.13	28.3	269.07	0.0320	0.3042	10	95	<0.50	0		8.1	63
27	Thurs.		1.360														8.1	60
28	Fri.		1.170	6	59							10	98	<0.50	0		8.0	58
29	Sat.		1.080															
30	Sun.		1.130															
31	Mon.		0.990														8.0	60

TOTAL AVERAGE	0.6	31.837	59.0	509		138.82		1093.07		1.5006	86.0	748	0.6	5.0		8.0	60	0.0
MAX	0.2	1.027	7.4	64		34.71		273.27		0.3751	10.8	93	0.6	0.6		8.1	64	0.0
MIN	0.1	0.706	5.0	48		30.65		256.64		0.3042	9.0	79	0.6	0.0		7.9	56	0.0

7 DAY AVERAGE																		
WEEK 1	0.2	0.891	8.5	68		33.23		289.83		0.4227	11.0	89	0.6	2.5		8.0	58	0.0
WEEK 2	0.0	0.986	8.5	68		30.65		256.64		0.4381	12.0	97	<0.50	0.0		8.0	58	0.0
WEEK 3	0.0	1.067	7.0	65		38.82		277.53		0.3355	10.0	92	<0.50	0.0		8.0	61	0.0
WEEK 4	0.0	1.147	5.5	53		36.13		269.07		0.3042	10.0	96	<0.50	0.0		8.1	62	0.0

City of Waverly

MONTHLY MONITORING REPORT

Date: **May, 2021**

DISCHARGE SERIAL # 001 - # 002

Facility Number **0990001**

Note: 0.0 = <MDL of 0.6

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS						RAW ph	RAW TEMP. °F		
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY	INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	INF. TKN (as N) LBS/DAY			INF. TKN (as N) LBS/DAY	
1	Sat.	0.930					1.23												
2	Sun.	1.030					1.13												
3	Mon.	0.980	96	6.88	323	1990	1.18										7.6	57	
4	Tues.	0.970	96	6.84			1.19	181	1464						300	2427	7.5	55	
5	Wed.	0.960	96	6.79			1.20	157	1257	3.92	31.39	30.2	241.79	25.5	204.16	244	1954	7.5	56
6	Thurs.	1.020	96	6.79			1.14											7.5	55
7	Fri.	0.900	96	6.77			1.26											7.9	56
8	Sat.	1.020					1.14												
9	Sun.	0.990					1.17												
10	Mon.	0.960	96	6.75	345	1820	1.20											7.8	57
11	Tues.	0.980	96	6.77			1.18											7.6	56
12	Wed.	0.980	96	6.78			1.18	241	1970	7.94	64.90	41.0	335.10	37.8	308.95	468	3825	7.5	56
13	Thurs.	1.020	96	6.77			1.14											7.7	57
14	Fri.	0.950	96	6.78			1.21	166	1315							240	1902	7.5	56
15	Sat.	0.920					1.24												
16	Sun.	0.990					1.17												
17	Mon.	0.990	96	6.81	285	1760	1.17											7.7	57
18	Tues.	1.110	96	6.73			1.05											7.6	56
19	Wed.	1.070	96	6.76			1.09	240	2142	6.78	60.50	35.4	315.90	34.2	305.19	356	3177	7.5	56
20	Thurs.	1.240	96	6.75			0.92											7.6	57
21	Fri.	1.150	96	6.80			1.01	134	1285							228	2187	7.4	57
22	Sat.	1.000					1.16												
23	Sun.	1.110					1.05												
24	Mon.	1.110	96	6.81	300	1810	1.05											7.4	57
25	Tues.	1.140	96	6.80			1.02											7.4	58
26	Wed.	1.140	96	6.80			1.02	156	1483	6.02	57.24	26.6	252.90	24.5	232.94	236	2244	7.4	57
27	Thurs.	1.360	96	6.82			0.80											7.6	59
28	Fri.	1.170	96	6.83			0.99	133	1298							248	2420	7.5	56
29	Sat.	1.080					1.08												
30	Sun.	1.130					1.03												
31	Mon.	0.990	96	6.87			1.17											7.6	58

TOTAL AVERAGE	32.390						34.570	1408.0	12214		214.02		1145.70		1051.24	2320.0	20134		
MAX	1.045	96.0	6.8				1.115	176.0	1527		53.50		286.42		262.81	290.0	2517	7.6	56.6
MIN	1.360	96.0	6.9				1.260	241.0	2142		64.90		335.10		308.95	468.0	3825	7.9	59.0
	0.900	96.0	6.7				0.800	133.0	1257		31.39		241.79		204.16	228.0	1902	7.4	55.0

7 DAY AVERAGE																			
WEEK 1	0.970						1.190	169.0	1361		31.39		241.79		204.16	272.0	2190	7.6	55.8
WEEK 2	0.986						1.174	203.5	1642		64.90		335.10		308.95	354.0	2863	7.6	55.8
WEEK 3	1.067						1.093	187.0	1713		60.50		315.90		305.19	292.0	2682	7.6	55.8
WEEK 4	1.147						1.013	144.5	1390		57.24		252.90		232.94	242.0	2332	7.5	57.4

Signature: _____
 Certification Number: **3989**

City of Waverly
MONTHLY MONITORING REPORT

Date: April, 2021

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. °F
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Thurs.	1.040	96	6.87			1.12	112	971							180	1561	7.5	53
2	Fri.	1.070	96	6.92			1.09											7.5	53
3	Sat.	1.300					0.86												
4	Sun.	0.760					1.40												
5	Mon.	1.150	96	6.89	278	2100	1.01											7.7	54
6	Tues.	1.130	96	6.86			1.03											7.6	54
7	Wed.	1.160	96	6.87			1.00	193	1867	6.27	60.66	29.9	289.26	25.3	244.76	312	3018	7.5	53
8	Thurs.	1.120	96	6.84			1.04											7.8	54
9	Fri.	1.080	93	6.85			1.08	173	1558							304	2738	7.5	53
10	Sat.	0.980					1.18												
11	Sun.	1.070					1.09												
12	Mon.	1.050	96	6.86	458	2090	1.11											7.8	54
13	Tues.	1.000	96	6.81			1.16											7.8	54
14	Wed.	1.020	96	6.85			1.14	183	1557	7.15	60.82	34.3	291.78	30.4	258.61	356	3028	7.6	53
15	Thurs.	1.080					1.08												
16	Fri.	1.040	96	6.83			1.12	179	1553							328	2845	7.5	54
17	Sat.	0.930	97	6.88			1.23											7.8	54
18	Sun.	1.040					1.12												
19	Mon.	0.960	96	6.86	300	2150	1.20											7.7	55
20	Tues.	0.940	96	6.85			1.22											7.8	55
21	Wed.	0.990	96	6.88			1.17	178	1470	6.97	57.55	34.5	284.85	31.1	256.78	272	2246	7.5	54
22	Thurs.	1.020	96	6.82			1.14											7.7	54
23	Fri.	0.980	96	6.81			1.18	162	1324							360	2942	7.5	54
24	Sat.	0.860					1.30												
25	Sun.	0.920					1.24												
26	Mon.	1.040	96	6.87	308	1980	1.12											7.8	56
27	Tues.	0.990	96	6.81			1.17	140	1156	5.37	44.34	29.3	241.92	24.4	201.46	234	1932	7.6	55
28	Wed.	0.980	96	6.81			1.18											7.7	56
29	Thurs.	0.940					1.22												
30	Fri.	0.940	96	6.79			1.22											7.5	55

TOTAL AVERAGE	30.580					34.220	1320.0	11456		223.37		1107.82		961.61	2346.0	20311			
MAX	1.019	95.9	6.8			1.141	165.0	1432		55.84		276.95		240.40	293.3	2539		7.6	54.1
MIN	0.760	97.0	6.9			1.400	193.0	1867		60.82		291.78		258.61	360.0	3028		7.8	56.0
		93.0	6.8			0.860	112.0	971		44.34		241.92		201.46	180.0	1561		7.5	53.0

7 DAY AVERAGE																			
WEEK 1	1.087					1.073	152.5	1419		60.66		289.26		244.76	246.0	2290		7.6	53.4
WEEK 2	1.046					1.114	178.0	1557		60.82		291.78		258.61	330.0	2883		7.7	53.6
WEEK 3	0.997					1.163	178.5	1511		57.55		284.85		256.78	300.0	2545		7.7	53.6
WEEK 4	0.970					1.190	151.0	1240		44.34		241.92		201.46	297.0	2437		7.7	56.0

Signature: _____
Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: April, 2021

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD		CBOD 5 DAY 20 °C		EFF. PHOS.		EFF. TOTAL N (as N)		EFF. Cu		TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. pH	EFF. TEMP. °F	E. COLI #/100 ML
		GOLF COURSE FLOW	EFF. FLOW MGD	EFF. MG/L	EFF. LBS/DAY	MG/L	LBS/DAY	MG/L	LBS/DAY	MG/L	LBS/DAY	MG/L	LBS/DAY	FINAL MG/L	FINAL LBS/DAY			
1	Thurs.		1.040	5	43							10	87	<0.50	0	8.1	52	4.1
2	Fri.		1.070													8.1	53	
3	Sat.		1.300															
4	Sun.		0.760															
5	Mon.		1.150													8.0	56	
6	Tues.		1.130													8.0	57	
7	Wed.		1.160	5	48	3.51	33.96	28.5	275.72	0.0319	0.3086	15	145	<0.50	0	8.0	58	4.1
8	Thurs.		1.120													8.0	57	
9	Fri.		1.080	5	45							9	81	<0.50	0	8.0	57	
10	Sat.		0.980															
11	Sun.		1.070															
12	Mon.		1.050													8.1	55	
13	Tues.		1.000													8.1	54	
14	Wed.		1.020	4	34	3.48	29.60	31.5	267.96	0.0275	0.2339	8	68	<0.50	0	8.1	53	1.0
15	Thurs.		1.080															
16	Fri.		1.040	4	35							8	69	<0.50	0	8.1	54	
17	Sat.	0.253	0.677													8.0	55	
18	Sun.	0.231	0.809															
19	Mon.	0.248	0.712													8.0	55	
20	Tues.	0.231	0.709													8.1	53	
21	Wed.	0.247	0.743	4	25	3.60	22.31	32.2	199.53	0.0272	0.1685	9	56	<0.50	0	8.1	53	7.5
22	Thurs.	0.252	0.768													8.2	53	
23	Fri.	0.251	0.729	5	30							9	55	<0.50	0	8.1	55	
24	Sat.	0.236	0.624															
25	Sun.	0.262	0.658															
26	Mon.	0.253	0.787													8.1	54	
27	Tues.	0.258	0.732	5	31	4.40	26.86	34.3	209.40	0.0379	0.2314	11	67	<0.50	0	8.1	55	1.0
28	Wed.	0.232	0.748													8.1	58	
29	Thurs.	0.248	0.692															
30	Fri.	0.251	0.689													8.0	58	

TOTAL	3.5	27.127	37.0	291		112.73		952.61		0.9425		79.0	628	0.0	0.0			17.7
AVERAGE	0.2	0.904	4.6	36		28.18		238.15		0.2356		9.9	79	<0.50	0.0	8.1	55	3.5
MAX	0.3	1.300	5.0	48		33.96		275.72		0.3086		15.0	145	<0.50	0.0	8.2	58	7.5
MIN	0.2	0.624	4.0	25		22.31		199.53		0.1685		8.0	55	<0.50	0.0	8.0	52	1.0

7 DAY AVERAGE	WEEK 1	WEEK 2	WEEK 3	WEEK 4
	0.0	1.087	5.0	46
			33.96	275.72
			0.3086	
	12.5	116	<0.50	0.0
	8.0	55	4.1	
	0.0	1.046	4.5	40
			29.60	267.96
			0.2339	
	<0.50	0.0	8.1	55
	1.0			
	0.2	0.824	4.0	30
			22.31	199.53
			0.1685	
	<0.50	0.0	8.1	54
	7.5			
	0.2	0.721	5.0	30
			26.86	209.40
			0.2314	
	10.0	61	<0.50	0.0
	8.1	55	1.0	

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: March, 2021

Facility Number: 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD	EFF. FLOW MGD	CBOD 5 DAY 20 °C		EFF. PHOS. MG/L	EFF. PHOS. LBS/DAY	EFF. TOTAL N (as N) MG/L	EFF. TOTAL N (as N) LBS/DAY	EFF. Cu MG/L	EFF. Cu LBS/DAY	TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. ph	EFF. TEMP. °F.	E. COLI #/100 ML
				EFF. MG/L	EFF. LBS/DAY							EFF. MG/L	EFF. LBS/DAY	FINAL MG/L	FINAL LBS/DAY			
1	Mon.		0.990													8.0	49	
2	Tues.		1.140													8.1	49	
3	Wed.		1.080	6	54	3.16	28.46	25.4	228.78	0.0275	0.2477	6	54	<0.50	0	8.0	50	
4	Thurs.		1.140													8.0	51	
5	Fri.		1.040	5	43							8	69	<0.50	0	8.0	51	
6	Sat.		1.040															
7	Sun.		1.190															
8	Mon.		1.170													8.1	52	
9	Tues.		1.250													8.0	54	
10	Wed.		1.500	8	100	3.57	44.66	21.8	272.72	0.0247	0.3090	9	113	<0.50	0	8.0	54	
11	Thurs.		1.330													8.1	52	
12	Fri.		1.130	7	66							8	75	<0.50	0	8.0	52	
13	Sat.		1.010															
14	Sun.		1.030															
15	Mon.		0.990													8.0	52	
16	Tues.		1.050															
17	Wed.		1.130	5	47							8	75	<0.50	0	8.1	50	
18	Thurs.		1.120			2.93	27.37	18.9	176.54	0.0201	0.1878					8.2	50	
19	Fri.		1.040	5	43							8	69	<0.50	0	8.1	51	
20	Sat.		1.050															
21	Sun.		1.150															
22	Mon.		1.120													8.0	51	
23	Tues.		1.330													8.0	54	
24	Wed.		1.260	7	74	3.68	38.67	21.9	230.13	0.0358	0.3762	13	137	<0.50	0	8.0	54	
25	Thurs.		1.240													8.0	52	
26	Fri.		1.200	6	60							10	100	<0.50	0	8.0	53	
27	Sat.		1.150															
28	Sun.		1.190															
29	Mon.		1.190													8.1	53	
30	Tues.		1.150													8.1	54	
31	Wed.		1.080	5	45	3.01	27.11	25.7	231.49	0.0318	0.2864	10	90	<0.50	0	8.1	52	

TOTAL AVERAGE	0.0	35.480	54.0	533	166.27		1139.66		1.4071	80.0	783	0.0	0.0			8.0	52	0.0
MAX	0.0	1.145	6.0	59	33.25		227.93		0.2814	8.9	87	<0.50	0.0			8.0	52	0.0
MIN	0.0	0.990	5.0	43	27.11		176.54		0.1878	6.0	54	<0.50	0.0			8.0	49	0.0

7 DAY AVERAGE																		
WEEK 1	0.0	1.089	5.5	49			28.46		0.2477	7.0	62	<0.50	0.0			8.0	50	0.0
WEEK 2	0.0	1.203	7.5	83			44.66		0.3090	8.5	94	<0.50	0.0			8.0	53	0.0
WEEK 3	0.0	1.076	5.0	45			27.37		0.1878	8.0	72	<0.50	0.0			8.1	51	0.0
WEEK 4	0.0	1.213	6.5	67			38.67		0.3762	11.5	118	<0.50	0.0			8.0	53	0.0

City of Waverly

MONTHLY MONITORING REPORT

Date: March, 2021

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. °F	
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY			INF. MG/L
1	Mon.	0.990	96	6.82	360	1740	1.17										7.8	51		
2	Tues.	1.140	96	6.82			1.02										7.8	52		
3	Wed.	1.080	96	6.85			1.08	165	1486	6.28	56.57	34.8	313.45	30.8	277.42	272	2450	7.6	52	
4	Thurs.	1.140	96	6.84			1.02										7.9	52		
5	Fri.	1.040	97	6.85			1.12	243	2108							432	3747	7.7	51	
6	Sat.	1.040					1.12													
7	Sun.	1.190					0.97													
8	Mon.	1.170	96	6.85	265	1810	0.99										7.9	51		
9	Tues.	1.250	96	6.84			0.91										7.5	51		
10	Wed.	1.500	96	6.84			0.66	187	2339	5.00	62.55	36.8	460.37	30.4	380.30	415	5192	7.7	53	
11	Thurs.	1.330	96	6.86			0.83										7.7	53		
12	Fri.	1.130	96	6.90			1.03	95	895							264	2488	7.6	51	
13	Sat.	1.010					1.15													
14	Sun.	1.030					1.13													
15	Mon.	0.990	96	6.90			1.17										7.7	53		
16	Tues.	1.050					1.11													
17	Wed.	1.130	97	6.76			1.03	88	829							230	2168	8.0	51	
18	Thurs.	1.120	97	6.75			1.04			6.32	59.03	32.8	306.38	27.4	255.94			7.9	50	
19	Fri.	1.040	97	6.77			1.12	84	729							193	1674	7.8	51	
20	Sat.	1.050	97	6.75			1.11												8.0	51
21	Sun.	1.150					1.01													
22	Mon.	1.120	96	6.88			1.04										7.8	51		
23	Tues.	1.330	91	6.85	915	2200	0.83										7.6	53		
24	Wed.	1.260	96	6.93			0.90	175	1839	5.39	56.64	30.3	318.40	26.4	277.42	300	3153	7.5	52	
25	Thurs.	1.240	96	6.92			0.92												7.7	53
26	Fri.	1.200	96	6.94			0.96	135	1351							242	2422	7.6	52	
27	Sat.	1.150					1.01													
28	Sun.	1.190					0.97													
29	Mon.	1.190	96	6.92	308	2340	0.97												8.0	54
30	Tues.	1.150	96	6.87			1.01												7.9	54
31	Wed.	1.080	96	6.87			1.08	143	1288	5.08	45.76	29.5	265.71	24.2	217.97	252	2270	7.6	53	

TOTAL AVERAGE	35.480						31.460	1315.0	12865		280.55		1664.31		1409.06	2600.0	25562		
MAX	1.145	96.0	6.8				1.015	146.1	1429		56.11		332.86		281.81	288.9	2840	7.8	52.0
MIN	1.500	97.0	6.9				1.170	243.0	2339		62.55		460.37		380.30	432.0	5192	8.0	54.0
	0.990	91.0	6.7				0.660	84.0	729		45.76		265.71		217.97	193.0	1674	7.5	50.0

7 DAY AVERAGE																			
WEEK 1	1.089						1.071	204.0	1797		56.57		313.45		277.42	352.0	3098	7.8	51.6
WEEK 2	1.203						0.957	141.0	1617		62.55		460.37		380.30	339.5	3840	7.7	51.6
WEEK 3	1.076						1.084	86.0	779		59.03		306.38		255.94	211.5	1921	7.9	51.4
WEEK 4	1.213						0.947	155.0	1595		56.64		318.40		277.42	271.0	2787	7.6	52.2

Signature: _____
 Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: February, 2021

Facility Number 0990001
 Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD		CBOD 5 DAY 20 °C		EFF. PHOS.		EFF. TOTAL N (as N)		EFF. Cu		TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. ph	EFF. TEMP. °F.	E. COLI #/100 ML
		GOLF COURSE FLOW	EFF. FLOW MGD	EFF. MG/L	EFF. LBS/DAY	MG/L	LBS/DAY	MG/L	LBS/DAY	MG/L	LBS/DAY	MG/L	LBS/DAY	FINAL MG/L	FINAL LBS/DAY			
1	Mon.		0.920													8.0	50	
2	Tues.		0.900													8.1	49	
3	Wed.		0.940	6	47	3.65	28.61	33.9	265.76	0.0320	0.2509	7	55	<0.50	0	8.0	50	
4	Thurs.		0.840													8.1	50	
5	Fri.		0.870	5	36							7	51	<0.50	0	8.1	48	
6	Sat.		0.760															
7	Sun.		0.840															
8	Mon.		0.810													8.0	46	
9	Tues.		0.830													8.0	47	
10	Wed.		0.860	7	50	3.75	26.90	30.9	221.63	0.0295	0.2116	6	43	<0.50	0	8.0	48	
11	Thurs.		0.800													8.0	48	
12	Fri.		0.820	4	27							7	48	<0.50	0	8.0	47	
13	Sat.		0.760															
14	Sun.		0.810															
15	Mon.		0.820													8.0	45	
16	Tues.		0.830													8.0	45	
17	Wed.		0.860	5	36	3.56	25.53	31.8	228.08	0.0299	0.2145	8	57	<0.50	0	8.0	47	
18	Thurs.		0.850													8.0	48	
19	Fri.		0.850	8	57							7	50	<0.50	0	8.0	48	
20	Sat.		0.830															
21	Sun.		0.930															
22	Mon.		0.920													8.0	50	
23	Tues.		1.040													8.0	51	
24	Wed.		1.070	7	62	4.03	35.96	29.7	265.04	0.0314	0.2802	7	62	<0.50	0	8.0	51	
25	Thurs.		1.010													8.0	50	
26	Fri.		0.980	5	41							7	57	<0.50	0	8.0	50	
27	Sat.		0.970															
28	Sun.		1.090															

TOTAL	0.0	24,810	47.0	357		117.01		980.51		0.9571	56.0	423	0.0	0.0				0.0
AVERAGE	0.0	0.886	5.9	45		29.25		245.13		0.2393	7.0	53	<0.50	0.0		8.0	48	0.0
MAX	0.0	1.090	8.0	62		35.96		265.76		0.2802	8.0	62	<0.50	0.0		8.1	51	0.0
MIN	0.0	0.760	4.0	27		25.53		221.63		0.2116	6.0	43	<0.50	0.0		8.0	45	0.0

7 DAY AVERAGE																		
WEEK 1	0.0	0.867	5.5	42		28.61		265.76		0.2509	7.0	53	<0.50	0.0		8.1	49	0.0
WEEK 2	0.0	0.813	5.5	39		26.90		221.63		0.2116	6.5	45	<0.50	0.0		8.0	47	0.0
WEEK 3	0.0	0.853	6.5	46		25.53		228.08		0.2145	7.5	54	<0.50	0.0		8.0	47	0.0
WEEK 4	0.0	1.011	6.0	52		35.96		265.04		0.2802	7.0	60	<0.50	0.0		8.0	50	0.0

City of Waverly
MONTHLY MONITORING REPORT

Date: February, 2021

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. °F
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Mon.	0.920	96	6.71	435	1570	1.24										7.6	53	
2	Tues.	0.900	97	6.74			1.26										7.8	53	
3	Wed.	0.940	96	6.68			1.22	182	1427	6.78	53.15	36.9	289.28	32.7	256.35	304	2383	7.5	53
4	Thurs.	0.840	97	6.70			1.32										7.8	53	
5	Fri.	0.870	96	6.67			1.29	157	1139							234	1698	7.5	53
6	Sat.	0.760					1.40												
7	Sun.	0.840					1.32												
8	Mon.	0.810	96	6.68	938	1620	1.35										7.9	54	
9	Tues.	0.830	96	6.71			1.33										7.9	53	
10	Wed.	0.860	96	6.78			1.30	154	1105	6.37	45.69	38.1	273.27	32.5	233.10	228	1635	7.5	53
11	Thurs.	0.800	96	6.79			1.36										7.8	53	
12	Fri.	0.820	97	6.81			1.34	169	1156							232	1587	7.5	52
13	Sat.	0.760					1.40												
14	Sun.	0.810					1.35												
15	Mon.	0.820	96	6.81	293	1730	1.34										8.0	53	
16	Tues.	0.830	96	6.79			1.33										7.9	52	
17	Wed.	0.860	96	6.81			1.30	193	1384	5.73	41.10	33.8	242.43	27.5	197.24	278	1994	7.5	52
18	Thurs.	0.850	96	6.82			1.31										7.5	52	
19	Fri.	0.850	96	6.84			1.31	183	1297							276	1957	7.6	52
20	Sat.	0.830					1.33												
21	Sun.	0.930					1.23												
22	Mon.	0.920	97	6.81	338	1730	1.24										7.9	53	
23	Tues.	1.040	96	6.81			1.12										7.8	53	
24	Wed.	1.070	95	6.84			1.09	186	1660	6.86	61.22	31.2	278.42	27.8	248.08	312	2784	7.4	53
25	Thurs.	1.010	93	6.84			1.15										8.0	52	
26	Fri.	0.980	96	6.81			1.18	147	1201							256	2092	7.5	52
27	Sat.	0.970					1.19												
28	Sun.	1.090					1.07												

TOTAL AVERAGE	24.810					35.670	1371.0	10369		201.16		1083.40		934.78	2120.0	16130		
MAX	0.886	96.0	6.8			1.274	171.4	1296		50.29		270.85		233.70	265.0	2016	7.7	52.7
MIN	1.090	97.0	6.8			1.400	193.0	1660		61.22		289.28		256.35	312.0	2784	8.0	54.0
	0.760	93.0	6.7			1.070	147.0	1105		41.10		242.43		197.24	228.0	1587	7.4	52.0

7 DAY AVERAGE																		
WEEK 1	0.867					1.293	169.5	1283		53.15		289.28		256.35	269.0	2041	7.6	53.0
WEEK 2	0.813					1.347	161.5	1130		45.69		273.27		233.10	230.0	1611	7.7	53.2
WEEK 3	0.853					1.307	188.0	1341		41.10		242.43		197.24	277.0	1975	7.7	53.2
WEEK 4	1.011					1.149	166.5	1431		61.22		278.42		248.08	284.0	2438	7.7	52.6

Signature: _____
Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT

Date: January, 2021

Facility Number 0990001

DISCHARGE SERIAL # 001 - # 002

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD	EFF. FLOW MGD	CBOD 5 DAY 20 °C		EFF. PHOS. MGL	EFF. PHOS. LBS/DAY	EFF. TOTAL N (as N) MGL	EFF. TOTAL N (as N) LBS/DAY	EFF. Cu MGL	EFF. Cu LBS/DAY	TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. pH	EFF. TEMP. °F.	E. COLI #/100 ML
				EFF. MGL	EFF. LBS/DAY							EFF. MGL	EFF. LBS/DAY	FINAL MGL	FINAL LBS/DAY			
1	Fri.		0.820															
2	Sat.		0.840															
3	Sun.		0.850														8.0	51
4	Mon.		0.850														8.0	50
5	Tues.		0.880														8.1	51
6	Wed.		0.870	7	51	3.67	26.63	32.3	234.36	0.0368	0.2670	11	80	<0.50	0	8.0	52	
7	Thurs.		0.910	7	53							5	38	<0.50	0	8.1	52	
8	Fri.		0.840	8	56							5	35	<0.50	0	8.0	52	
9	Sat.		0.840															
10	Sun.		0.870															
11	Mon.		0.880														8.0	51
12	Tues.		0.890														8.1	51
13	Wed.		0.910	8	61	4.09	31.04	32.4	245.90	0.0279	0.2117	7	53	<0.50	0	8.0	52	
14	Thurs.		0.940														8.1	52
15	Fri.		0.900	5	38							6	45	<0.50	0	8.1	52	
16	Sat.		0.840															
17	Sun.		0.900															
18	Mon.		0.900														7.8	53
19	Tues.		0.860														8.0	51
20	Wed.		0.900	10	75	3.86	28.97	33.6	252.20	0.0294	0.2207	8	60	<0.50	0	8.0	49	
21	Thurs.		0.940														8.1	50
22	Fri.		0.840															
23	Sat.		0.790														7.9	48
24	Sun.		0.880															
25	Mon.		0.860														8.0	49
26	Tues.		0.840	6	42							8	56	<0.50	0	8.0	48	
27	Wed.		0.850	7	50	3.83	27.15	36.2	256.62	0.0313	0.2219	8	57	<0.50	0	8.0	48	
28	Thurs.		0.900														8.0	49
29	Fri.		0.880														8.0	49
30	Sat.		0.850															
31	Sun.		0.910															

TOTAL	0.0	27.030	58.0	425		113.79		989.08		0.9213		58.0	424	0.0	0.0			0.0
AVERAGE	0.0	0.872	7.3	53		28.45		247.27		0.2303		7.3	53	<0.50	0.0			0.0
MAX	0.0	0.940	10.0	75		31.04		256.62		0.2670		11.0	80	<0.50	0.0			0.0
MIN	0.0	0.790	5.0	38		26.63		234.36		0.2117		5.0	35	<0.50	0.0			0.0

7 DAY AVERAGE																		
WEEK 1	0.0	0.860	7.0	52		26.63		234.36		0.2670		8.0	59	<0.50	0.0			0.0
WEEK 2	0.0	0.881	8.0	58		31.04		245.90		0.2117		6.0	44	<0.50	0.0			0.0
WEEK 3	0.0	0.891	7.5	56		28.97		252.20		0.2207		7.0	53	<0.50	0.0			0.0
WEEK 4	0.0	0.851	6.5	46		27.15		256.62		0.2219		8.0	56	<0.50	0.0			0.0

City of Waverly
MONTHLY MONITORING REPORT

Date: January, 2021

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. °F
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Fri.	0.820					1.34												
2	Sat.	0.840					1.32												
3	Sun.	0.850	94	6.84			1.31											7.5	54
4	Mon.	0.850	96	6.88	130	1860	1.31											7.5	55
5	Tues.	0.880	96	6.88			1.28											7.6	55
6	Wed.	0.870	97	6.84			1.29	211	1531	7.62	55.29	38.6	280.07	33.5	243.07	324	2351	7.4	55
7	Thurs.	0.910	97	6.83			1.25	148	1123							224	1700	7.5	54
8	Fri.	0.840	97	6.81			1.32	157	1100							236	1653	7.4	55
9	Sat.	0.840					1.32												
10	Sun.	0.870					1.29												
11	Mon.	0.880	96	6.77	140	1410	1.28											7.8	54
12	Tues.	0.890	97	6.75			1.27											7.8	54
13	Wed.	0.910	97	6.77			1.25	154	1169	6.47	49.10	33.9	257.28	30.1	228.44	246	1867	7.5	54
14	Thurs.	0.940	97	6.77			1.22											7.8	55
15	Fri.	0.900	96	6.78			1.26	131	983							220	1651	7.5	54
16	Sat.	0.840					1.32												
17	Sun.	0.900					1.26												
18	Mon.	0.900	96	6.80	270	1550	1.26											7.7	53
19	Tues.	0.860	96	6.78			1.30											7.5	54
20	Wed.	0.900	96	6.76			1.26	198	1486	6.73	50.52	35.8	268.71	32.4	243.19	276	2072	7.5	53
21	Thurs.	0.940	97	6.78			1.22											7.8	54
22	Fri.	0.840					1.32												
23	Sat.	0.790	97	6.80			1.37											7.6	53
24	Sun.	0.880					1.28												
25	Mon.	0.860	96	6.81	170	1580	1.30											7.8	54
26	Tues.	0.840	96	6.79			1.32	177	1240							238	1667	7.5	53
27	Wed.	0.850	96	6.78			1.31	168	1191	4.54	32.18	33.0	233.94	28.4	201.33	272	1928	7.5	53
28	Thurs.	0.900	97	6.77			1.26											7.7	53
29	Fri.	0.880	96	6.78			1.28											7.5	53
30	Sat.	0.850					1.31												
31	Sun.	0.910					1.25												

TOTAL	27.030					39.930	1344.0	9823		187.09		1040.01		916.03	2036.0	14890			
AVERAGE	0.872	96.3	6.8			1.288	168.0	1228		46.77		260.00		229.01	254.5	1861	7.6	53.9	
MAX	0.940	97.0	6.9			1.370	211.0	1531		55.29		280.07		243.19	324.0	2351	7.8	55.0	
MIN	0.790	94.0	6.8			1.220	131.0	983		32.18		233.94		201.33	220.0	1651	7.4	53.0	

7 DAY AVERAGE																			
WEEK 1	0.860					1.300	179.5	1327		55.29		280.07		243.07	274.0	2025	7.5	54.6	
WEEK 2	0.881					1.279	155.5	1134		49.10		257.28		228.44	241.0	1760	7.7	54.7	
WEEK 3	0.891					1.269	164.5	1235		50.52		268.71		243.19	248.0	1861	7.6	54.7	
WEEK 4	0.851					1.309	172.5	1215		32.18		233.94		201.33	255.0	1798	7.6	53.2	

Signature: _____
Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT

Date: December, 2020

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DISCHARGE SERIAL # 001 - # 002

DAY OF MONTH	DAY OF WEEK	MGD		CBOD 5 DAY 20 °C		EFF. PHOS.		EFF. TOTAL N (as N)		EFF. Cu		TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. pH	EFF. TEMP. °F.	E. COLI #/100 ML
		GOLF COURSE FLOW	EFF. FLOW MGD	EFF. MG/L	EFF. LBS/DAY	EFF. MG/L	EFF. LBS/DAY	EFF. MG/L	EFF. LBS/DAY	EFF. MG/L	EFF. LBS/DAY	EFF. MG/L	EFF. LBS/DAY	FINAL MG/L	FINAL LBS/DAY			
1	Tues.		0.870													8.0	52	
2	Wed.		0.930	3	23	3.48	26.99	31.5	244.32	0.0527	0.4088	20	155	<0.50	0			
3	Thurs.		0.870													8.1	54	
4	Fri.		0.850	6	43							14	99	<0.50	0	8.2	55	
5	Sat.		0.850													8.1	54	
6	Sun.		0.840															
7	Mon.		0.860													8.1	55	
8	Tues.		0.860													8.1	54	
9	Wed.		0.870	8	58	3.76	27.28	34.1	247.42	0.0450	0.3265	11	80	<0.50	0	8.1	55	
10	Thurs.		0.890													8.0	55	
11	Fri.		0.850	8	57							12	85	<0.50	0	8.0	56	
12	Sat.		0.800															
13	Sun.		0.790															
14	Mon.		0.780													8.0	52	
15	Tues.		0.730													8.0	52	
16	Wed.		0.780	8	52	3.64	23.68	31.8	206.87	0.0392	0.2550	10	65	0.56	4	8.0	52	
17	Thurs.		0.840													8.0	52	
18	Fri.		0.820	7	48							11	75	<0.50	0	8.0	53	
19	Sat.		0.680															
20	Sun.		0.950															
21	Mon.		0.830													8.0	53	
22	Tues.		0.870	6	44							8	58	0.73	5	8.0	53	
23	Wed.		0.750	7	44	3.27	20.45	30.0	187.65	0.0313	0.1958	8	50	0.67	4	8.1	53	
24	Thurs.		0.790															
25	Fri.		0.770													8.1	47	
26	Sat.		0.820													8.0	48	
27	Sun.		0.890															
28	Mon.		0.860													8.0	50	
29	Tues.		0.880													7.9	51	
30	Wed.		0.850													8.0	51	
31	Thurs.		0.820													8.0	50	

TOTAL AVERAGE	0.0	25.840	53.0	368		98.41		886.26		1.1860	94.0	668	2.0	13.1		8.0	52	0.0
MAX	0.0	0.834	6.6	46		24.60		221.56		0.2965	11.8	83	0.7	1.6		8.0	52	0.0
MIN	0.0	0.950	8.0	58		27.28		247.42		0.4088	20.0	155	0.7	5.3		8.2	56	0.0
MIN	0.0	0.680	3.0	23		20.45		187.65		0.1958	8.0	50	0.6	0.0		7.9	47	0.0

7 DAY AVERAGE																		
WEEK 1	0.0	0.867	4.5	33		26.99		244.32		0.4088	17.0	127	<0.50	0.0		8.1	54	0.0
WEEK 2	0.0	0.834	8.0	57		27.28		247.42		0.3265	11.5	82	<0.50	0.0		8.0	54	0.0
WEEK 3	0.0	0.804	7.5	50		23.68		206.87		0.2550	10.5	70	0.6	1.8		8.0	52	0.0
WEEK 4	0.0	0.821	6.5	44		20.45		187.65		0.1958	8.0	54	0.7	4.7		8.0	50	0.0

City of Waverly
MONTHLY MONITORING REPORT

Date: December, 2020

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. / INF. TKN / INF. TOTAL N						TOTAL SUSPENDED SOLIDS		RAW pH	RAW TEMP. ° F.
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY	INF. PHOS. MG/L	INF. PHOS. LBS/DAY	INF. TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	INF. MG/L	INF. LBS/DAY		
1	Tues.	0.870	98	6.92			1.29											7.8	57
2	Wed.	0.930					1.23	105	814	6.21	48.17	35.7	276.90	30.5	236.56	262	2032	7.6	58
3	Thurs.	0.870	97	6.88			1.29											7.5	57
4	Fri.	0.850	97	6.96			1.31	184	1304							258	1829	7.7	58
5	Sat.	0.850	95	6.81			1.31												
6	Sun.	0.840					1.32												
7	Mon.	0.860	97	6.90	270	2420	1.30											7.8	58
8	Tues.	0.860	97	6.93			1.30											7.8	57
9	Wed.	0.870	97	6.92			1.29	173	1255	5.32	38.60	35.1	254.68	28.0	203.16	316	2293	7.5	57
10	Thurs.	0.890	96	6.88			1.27											7.9	58
11	Fri.	0.850	97	6.90			1.31	144	1021							240	1701	7.4	56
12	Sat.	0.800					1.36												
13	Sun.	0.790					1.37												
14	Mon.	0.780	95	6.94	315	2380	1.38											7.7	57
15	Tues.	0.730	94	6.87			1.43											7.9	57
16	Wed.	0.780	97	6.88			1.38	164	1067	6.08	39.55	30.2	196.46	23.9	155.47	282	1834	7.5	56
17	Thurs.	0.840	97	6.88			1.32											7.7	56
18	Fri.	0.820	97	6.95			1.34	161	1101							284	1942	7.3	56
19	Sat.	0.880					1.48												
20	Sun.	0.950					1.21												
21	Mon.	0.830	95	6.86	600	2250	1.33											7.7	56
22	Tues.	0.870	97	6.90			1.29	135	980							216	1567	7.4	55
23	Wed.	0.750	97	6.90			1.41	135	844	3.93	24.58	28.8	180.14	20.5	128.23	218	1364	7.5	55
24	Thurs.	0.790					1.37												
25	Fri.	0.770	97	6.93			1.39											7.5	55
26	Sat.	0.820	97	6.89			1.34											7.9	55
27	Sun.	0.890					1.27												
28	Mon.	0.860	97	6.95	150	2050	1.30											7.7	55
29	Tues.	0.880	97	6.91			1.28											7.6	54
30	Wed.	0.850	96	6.89			1.31											7.8	56
31	Thurs.	0.820	97	6.86			1.34											7.5	54

TOTAL AVERAGE	25.840						41.120	1201.0	8387		150.90		908.18		723.43	2076.0	14563		
MAX	0.950	96.6	6.9				1.326	150.1	1048		37.73		227.04		180.86	259.5	1820	7.6	56.2
MIN	0.680	94.0	6.8				1.210	105.0	814		24.58		180.14		128.23	216.0	1364	7.3	54.0

7 DAY AVERAGE																			
WEEK 1	0.867						1.293	144.5	1059		48.17		276.90		236.56	260.0	1931	7.7	57.6
WEEK 2	0.834						1.326	158.5	1138		38.60		254.68		203.16	278.0	1997	7.7	57.6
WEEK 3	0.804						1.356	162.5	1084		39.55		196.46		155.47	283.0	1888	7.6	57.5
WEEK 4	0.821						1.339	135.0	912		24.58		180.14		128.23	217.0	1465	7.6	55.0

Signature: _____
Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: November, 2020

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD		CBOD 5 DAY 20 °C		EFF. PHOS.		EFF. TOTAL N (as N)		EFF. Cu		TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. pH	EFF. TEMP. °F.	E. COLI #/100 ML
		GOLF COURSE FLOW	EFF. FLOW MGD	EFF. MG/L	EFF. LBS/DAY	MG/L	LBS/DAY	MG/L	LBS/DAY	MG/L	LBS/DAY	EFF. MG/L	EFF. LBS/DAY	FINAL MG/L	FINAL LBS/DAY			
1	Sun.		0.870															
2	Mon.		0.920													8.0	56	
3	Tues.		0.950													8.0	58	
4	Wed.		0.940	8	63	4.42	34.65	32.2	252.44	0.0388	0.3042	13	102	<0.50	0	8.2	62	
5	Thurs.		0.960													7.9	62	
6	Fri.		0.940	6	47							14	110	<0.50	0	8.1	62	
7	Sat.		0.940															
8	Sun.		0.990															
9	Mon.		0.990													8.0	63	
10	Tues.		1.150													8.0	61	
11	Wed.		0.910	11	83	4.97	37.72	31.3	237.55	0.0792	0.6011	18	137	<0.50	0	8.1	57	
12	Thurs.		0.960													8.0	57	
13	Fri.		0.900	12	90							18	135	<0.50	0	8.2	57	
14	Sat.		0.880															
15	Sun.		0.920															
16	Mon.		0.880													8.1	56	
17	Tues.		0.930													8.0	55	
18	Wed.		0.960													8.0	56	
19	Thurs.		1.030	12	103	4.21	36.16	30.7	263.72	0.0500	0.4295	20	172	0.51	4	8.2	58	
20	Fri.		0.800	8	53							19	127	<0.50	0	8.1	60	
21	Sat.		0.880															
22	Sun.		0.900															
23	Mon.		0.910													8.0	56	
24	Tues.		1.020	7	60							14	119	<0.50	0	8.2	58	
25	Wed.		0.880	8	59	3.38	24.81	31.1	228.25	0.0348	0.2554	13	95	<0.50	0	8.2	58	
26	Thurs.		0.830													8.0	57	
27	Fri.		0.850													8.0	58	
28	Sat.		0.810															
29	Sun.		0.850															
30	Mon.		0.820													7.9	53	

TOTAL	0.0	27.570	72.0	558		133.34		981.95		1.5902	129.0	996	0.5	4.4				0.0
AVERAGE	0.0	0.919	9.0	70		33.34		245.49		0.3975	16.1	125	0.5	0.5		8.1	58	0.0
MAX	0.0	1.150	12.0	103		37.72		263.72		0.6011	20.0	172	0.5	4.4		8.2	63	0.0
MIN	0.0	0.800	6.0	47		24.81		228.25		0.2554	13.0	95	0.5	0.0		7.9	53	0.0

7 DAY AVERAGE	WEEK 1	WEEK 2	WEEK 3	WEEK 4
	0.0	0.931	7.0	55
				34.65
				252.44
				0.3042
	13.5	106	<0.50	0.0
	8.0	60		
	0.0	0.969	11.5	87
				37.72
				237.55
				0.6011
	18.0	136	<0.50	0.0
	8.1	59		
	0.0	0.914	10.0	78
				36.16
				263.72
				0.4295
	19.5	149	0.5	2.2
	8.1	57		
	0.0	0.886	7.5	59
				24.81
				228.25
				0.2554
	13.5	107	<0.50	0.0
	8.1	57		

City of Waverly

MONTHLY MONITORING REPORT

Date: November, 2020

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. °F
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Sun.	0.870					1.29												
2	Mon.	0.920	97	6.89			1.24											7.8	62
3	Tues.	0.950	97	6.91	278	2380	1.21											7.7	61
4	Wed.	0.940	97	6.99			1.22	200	1568	6.31	49.47	33.8	264.98	28.8	225.78	300	2352	7.5	61
5	Thurs.	0.960	97	6.91			1.20											7.8	61
6	Fri.	0.940	97	6.97			1.22	168	1317							256	2007	7.5	61
7	Sat.	0.940					1.22												
8	Sun.	0.990					1.17												
9	Mon.	0.990	97	6.91	300	2390	1.17											7.6	61
10	Tues.	1.150	97	6.92			1.01											7.4	60
11	Wed.	0.910	97	6.91			1.25	174	1321	7.37	55.93	32.7	248.17	28.2	214.02	284	2155	7.5	59
12	Thurs.	0.960	97	6.93			1.20											7.5	60
13	Fri.	0.900	97	7.02			1.26	152	1141							264	1982	7.5	59
14	Sat.	0.880					1.28												
15	Sun.	0.920					1.24												
16	Mon.	0.880	97	7.04	175	2620	1.28											7.8	60
17	Tues.	0.930	97	6.95			1.23											7.6	60
18	Wed.	0.960	97	6.99			1.20											7.6	60
19	Thurs.	1.030	97	7.04			1.13	166	1426	5.24	45.01	32.7	280.90	24.3	206.74	280	2405	7.5	59
20	Fri.	0.800	97	7.01			1.36	156	1041							274	1828	7.4	59
21	Sat.	0.880					1.28												
22	Sun.	0.900					1.26												
23	Mon.	0.910	97	6.96	330	2620	1.25											7.8	60
24	Tues.	1.020	97	7.00			1.14	159	1353							236	2008	7.5	59
25	Wed.	0.880	97	7.00			1.28	120	881	3.97	29.14	27.3	200.36	20.7	151.92	200	1468	7.5	58
26	Thurs.	0.830	97	6.98			1.33											7.6	58
27	Fri.	0.850	97	6.93			1.31											7.5	59
28	Sat.	0.810					1.35												
29	Sun.	0.850					1.31												
30	Mon.	0.820	97	7.01	270	2440	1.34											7.8	58

TOTAL AVERAGE	27.570						37.230	1295.0	10047				179.55		994.41		800.46	2094.0	16205		
MAX	0.919	97.0	7.0				1.241	161.9	1256				44.89		248.60		200.12	261.8	2026	7.6	59.8
MIN	0.800	97.0	6.9				1.360	200.0	1568				55.93		280.90		225.78	300.0	2405	7.8	62.0
							1.010	120.0	881				29.14		200.36		151.92	200.0	1468	7.4	58.0

7 DAY AVERAGE																					
WEEK 1	0.931						1.229	184.0	1442				49.47		264.98		225.78	278.0	2179	7.7	61.2
WEEK 2	0.969						1.191	163.0	1231				55.93		248.17		214.02	274.0	2068	7.5	61.2
WEEK 3	0.914						1.246	161.0	1233				45.01		280.90		208.74	277.0	2117	7.6	61.0
WEEK 4	0.886						1.274	139.5	1117				29.14		200.36		151.92	218.0	1738	7.6	58.8

Signature: _____
 Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT

Date: February, 2019

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD		CBOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS						AMMONIA NITROGEN		EFF. ph	EFF. TEMP. °F.	E. COLI #/100 ML		
		GOLF COURSE FLOW	EFF. FLOW MGD	EFF. MG/L	EFF. LBS/DAY	EFF. PHOS. MG/L	EFF. PHOS. LBS/DAY	EFF. TOTAL N (as N) MG/L	EFF. TOTAL N (as N) LBS/DAY	EFF. Cu MG/L	EFF. Cu LBS/DAY	EFF. MG/L	EFF. LBS/DAY				FINAL MG/L	FINAL LBS/DAY
1	Thurs.	0.000	0.970												7.8	63		
2	Fri.	0.000	0.960	6	48							9	72	0.90	7	8.2	62	
3	Sat.	0.000	0.880															
4	Sun.	0.000	0.980															
5	Mon.	0.000	1.020												7.9	61		
6	Tues.	0.000	1.050												7.9	63		
7	Wed.	0.000	1.070	7	62	4.06	36.23	31.4	280.21	0.0298	0.2659	15	134	<0.50	0	7.9	64	
8	Thurs.	0.000	1.070												8.0	64		
9	Fri.	0.000	1.040	5	43							11	95	<0.50	0			
10	Sat.	0.000	0.940												7.8	66		
11	Sun.	0.000	1.030												7.7	64		
12	Mon.	0.025	0.945															
13	Tues.	0.221	0.749												8.0	63		
14	Wed.	0.260	0.730	9	55	4.03	24.54	32.0	194.62	0.0364	0.2216	15	91	<0.50	0	8.2	63	
15	Thurs.	0.239	0.701												8.1	60		
16	Fri.	0.218	0.672	8	45							12	67	<0.50	0	8.2	60	
17	Sat.	0.313	0.787															
18	Sun.	0.213	0.567															
19	Mon.	0.233	0.667												8.1	59		
20	Tues.	0.257	0.653												8.0	57		
21	Wed.	0.244	0.716	11	66	4.33	25.86	30.2	180.34	0.0326	0.1947	16	96	<0.50	0	8.2	60	
22	Thurs.	0.000	1.230	7	72							13	133	0.56	6	8.2	61	
23	Fri.	0.000	1.000												7.9	59		
24	Sat.	0.000	0.880															
25	Sun.	0.000	0.900															
26	Mon.	0.000	0.920												7.9	56		
27	Tues.	0.000	0.880	9	66	4.76	34.93	34.8	255.40	0.0499	0.3662	23	169	0.56	4	8.1	57	
28	Wed.	0.000	0.950												7.9	57		
29	Thurs.	0.000	0.930															
30	Fri.	0.000	0.910	6	46							20	152	0.55	4	8.1	58	
31	Sat.	0.000	0.780															

TOTAL	2.2	27.577	68.0	503		121.56		910.77		1.0484	134.0	1009	2.6	21.3				0.0
AVERAGE	0.1	0.890	7.6	56		30.39		227.69		0.2621	14.9	112	0.6	2.4	8.0	61		0.0
MAX	0.3	1.230	11.0	72		36.23		280.21		0.3662	23.0	169	0.9	7.2	8.2	66		0.0
MIN	0.0	0.567	5.0	43		24.54		180.34		0.1947	9.0	67	0.6	0.0	7.7	56		0.0

7 DAY AVERAGE																		
WEEK 1	0.0	0.990	6.5	55		36.23		280.21		0.2659	12.0	103	0.9	3.6	7.9	63		0.0
WEEK 2	0.1	0.929	7.0	49		24.54		194.82		0.2216	13.0	93	<0.50	0.0	7.9	64		0.0
WEEK 3	0.2	0.680	9.5	55		25.86		180.34		0.1947	14.0	81	<0.50	0.0	8.1	59		0.0
WEEK 4	0.0	0.966	8.0	69		34.93		255.40		0.3662	18.0	151	0.6	4.9	8.0	58		0.0

City of Waverly
MONTHLY MONITORING REPORT

Date: **February, 2019**

DISCHARGE SERIAL # 001 - # 002

Facility Number **0990001**
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	INF. TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. ° F.
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Thurs.	0.970	97	6.96			1.19										7.6	65	
2	Fri.	0.960	97	7.05			1.20	121	969							278	2226	7.5	62
3	Sat.	0.880					1.28												
4	Sun.	0.980					1.18												
5	Mon.	1.020	97	6.95	270	2560	1.14										7.6	63	
6	Tues.	1.050	97	6.91			1.11										7.4	65	
7	Wed.	1.070	98	6.92			1.09	133	1187	6.04	53.90	33.9	302.52	29.6	264.14	265	2365	7.6	64
8	Thurs.	1.070	98	6.91			1.09										7.7	64	
9	Fri.	1.040					1.12	50	434							274	2377		
10	Sat.	0.940	97	6.94			1.22										7.5	65	
11	Sun.	1.030	97	6.95			1.13										7.6	64	
12	Mon.	0.970					1.19												
13	Tues.	0.970	97	7.00	293	2550	1.19										7.7	64	
14	Wed.	0.990	97	7.06			1.17	195	1610	6.61	54.58	35.8	295.59	30.7	253.48	276	2279	7.5	63
15	Thurs.	0.940	97	6.95			1.22										7.5	64	
16	Fri.	0.890	97	6.98			1.27	179	1329							264	1960	7.5	62
17	Sat.	1.100					1.06												
18	Sun.	0.780					1.38												
19	Mon.	0.900	97	6.99			1.26										7.7	61	
20	Tues.	0.910	97	6.91			1.25										7.7	62	
21	Wed.	0.960	97	7.02			1.20	276	2210	7.92	63.41	38.9	311.45	35.3	282.63	460	3683	7.5	61
22	Thurs.	1.230	97	7.02	170	2600	0.93	158	1621							268	2749	7.6	61
23	Fri.	1.000	97	6.97			1.16										7.8	62	
24	Sat.	0.880					1.28												
25	Sun.	0.900					1.26												
26	Mon.	0.920	97	7.01	293	2630	1.24										7.8	61	
27	Tues.	0.880	97	7.05			1.28	180	1321	5.93	43.52	36.6	268.61	30.4	223.11	280	2055	7.6	61
28	Wed.	0.950	97	6.93			1.21										7.5	61	
29	Thurs.	0.930					1.23												
30	Fri.	0.910	97	7.03			1.25	223	1692							368	2793	7.3	60
31	Sat.	0.780					1.38												

TOTAL AVERAGE	29,800	0.961	97.1	7.0			37.160	1515.0	12372		215.41		1178.17		1023.36	2733.0	22486		
MAX	1.230	98.0	7.1				1.380	168.3	1375		63.41		311.45		282.63	460.0	3683	7.6	62.6
MIN	0.780	97.0	6.9				0.930	50.0	434		43.52		268.61		223.11	264.0	1960	7.3	60.0

7 DAY AVERAGE																			
WEEK 1	0.990						1.170	127.0	1078		53.90		302.52		264.14	271.5	2295	7.5	63.8
WEEK 2	1.001						1.159	122.5	1022		54.58		295.59		253.48	275.0	2328	7.6	63.6
WEEK 3	0.926						1.234	227.5	1769		63.41		311.45		282.63	362.0	2821	7.6	64.0
WEEK 4	0.966						1.194	169.0	1471		43.52		268.61		223.11	274.0	2402	7.7	61.2

Signature: _____
Certification Number: **3989**

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: September, 2020

Facility Number 0990001
 Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD	GOLF COURSE FLOW	EFF. FLOW MGD	CBOD 5 DAY 20 °C							TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. pH	EFF. TEMP. °F.	E. COLI #/100 ML
					EFF. MG/L	EFF. LBS/DAY	EFF. PHOS. MG/L	EFF. PHOS. LBS/DAY	EFF. TOTAL N (as N) MG/L	EFF. TOTAL N (as N) LBS/DAY	EFF. Cu MG/L	EFF. Cu LBS/DAY	EFF. MG/L	EFF. LBS/DAY	FINAL MG/L			
1	Tues.	0.214	0.866													7.8	67	
2	Wed.	0.230	0.880	8	59	3.98	29.21	28.6	209.90	0.0401	0.2943	14	103	0.78	6	8.2	68	11.0
3	Thurs.	0.245	0.795													7.9	68	
4	Fri.	0.260	0.720	9	54							9	54	<0.50	0	8.2	67	
5	Sat.	0.188	2.632															
6	Sun.	0.000	2.640															
7	Mon.	0.000	1.220													7.7	68	
8	Tues.	0.000	1.370													7.9	64	
9	Wed.	0.000	1.750	13	190	3.28	47.87	23.3	340.06	0.0392	0.5721	15	219	1.18	17	8.2	64	2400.0
10	Thurs.	0.000	1.520													7.8	64	
11	Fri.	0.000	2.200	11	202							13	239	1.01	19	8.2	65	
12	Sat.	0.000	1.800															
13	Sun.	0.000	1.500															
14	Mon.	0.000	1.300													7.8	66	
15	Tues.	0.000	1.320													7.8	67	
16	Wed.	0.000	1.220	15	153	3.38	34.39	23.6	240.13	0.0329	0.3348	9	92	1.91	19	8.1	68	68.0
17	Thurs.	0.000	1.180													7.8	66	
18	Fri.	0.000	1.120	8	75							8	75	0.90	8	8.1	65	
19	Sat.	0.000	1.020															
20	Sun.	0.000	1.170															
21	Mon.	0.000	1.120													7.8	65	
22	Tues.	0.000	1.160													7.8	66	
23	Wed.	0.187	0.963	7	56	3.42	27.47	26.6	213.64	0.0272	0.2185	7	56	0.84	7	8.1	67	12.0
24	Thurs.	0.197	0.953													7.8	67	
25	Fri.	0.218	0.882	9	66							8	59	1.12	8	8.1	68	
26	Sat.	0.194	0.826															
27	Sun.	0.223	0.867															
28	Mon.	0.248	0.772													7.7	65	
29	Tues.	0.200	0.830													7.9	63	
30	Wed.	0.004	1.066	7	62	4.21	37.43	28.1	249.82	0.0275	0.2445	9	80	0.90	8	8.2	65	33.0

TOTAL AVERAGE	2.6	37.662	87.0	916		176.37		1253.55		1.6641	92.0	976	8.6	92.3				2524.0
MAX	0.1	1.255	9.7	102		35.27		250.71		0.3328	10.2	108	1.1	10.3				504.8
MIN	0.3	2.640	15.0	202		47.87		340.06		0.5721	15.0	239	1.9	19.4				2400.0
MIN	0.0	0.720	7.0	54		27.47		209.90		0.2185	7.0	54	0.8	0.0				11.0

7 DAY AVERAGE	WEEK 1	WEEK 2	WEEK 3	WEEK 4
	0.2	1.393	8.5	56
	0.0	1.634	12.0	196
	0.0	1.164	11.5	114
	0.2	0.918	8.0	61
			29.21	209.90
			47.87	340.06
			34.39	240.13
			27.47	213.64
				0.2943
				0.5721
				0.3348
				0.2185
				11.5
				78
				0.8
				2.9
				8.0
				68
				11.0
				14.0
				229
				1.1
				17.9
				8.0
				65
				2400.0
				8.2
				68
				12.0
				7.9
				66
				68.0
				7.9
				67
				12.0

City of Waverly

MONTHLY MONITORING REPORT

Date: September, 2020

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. °F
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Tues.	1.080	97	6.84			1.08										7.6	66	
2	Wed.	1.110	97	6.91			1.05	161	1490	6.19	57.30	34.1	315.68	30.6	283.28	258	2388	7.5	64
3	Thurs.	1.040	97	6.89			1.12											7.5	67
4	Fri.	0.980	97	6.90	175	2300	1.18	146	1193							208	1700	7.5	63
5	Sat.	2.820					-0.66												
6	Sun.	2.640					-0.48												
7	Mon.	1.220	98	6.86			0.94											7.5	65
8	Tues.	1.370	97	6.89	160	2290	0.79											7.5	65
9	Wed.	1.750	97	6.92			0.41	134	1956	5.42	79.10	29.5	430.55	23.0	335.69	260	3795	7.6	64
10	Thurs.	1.520	97	6.93			0.64											7.4	65
11	Fri.	2.200	97	6.95			-0.04	87	1596							132	2422	7.5	64
12	Sat.	1.800					0.36												
13	Sun.	1.500					0.66												
14	Mon.	1.300	97	6.91	175	2300	0.86											7.7	65
15	Tues.	1.320	97	6.89			0.84											7.4	65
16	Wed.	1.220	97	6.92			0.94	146	1486	4.81	48.94	32.5	330.68	27.1	275.74	216	2198	7.6	64
17	Thurs.	1.180	97	6.91			0.98											7.7	66
18	Fri.	1.120	97	7.00			1.04	154	1438							224	2092	7.5	63
19	Sat.	1.020					1.14												
20	Sun.	1.170					0.99												
21	Mon.	1.120	97	6.98	175	2650	1.04											7.6	65
22	Tues.	1.160	97	6.98			1.00											7.6	66
23	Wed.	1.150	97	7.00			1.01	160	1535	4.63	44.41	29.1	279.10	24.9	238.82	234	2244	7.5	64
24	Thurs.	1.150	97	6.97			1.01											7.4	65
25	Fri.	1.100	97	7.00			1.06	164	1505							244	2238	7.5	64
26	Sat.	1.020					1.14												
27	Sun.	1.090					1.07												
28	Mon.	1.020	97	6.98	293	2610	1.14											7.8	65
29	Tues.	1.030	97	6.98			1.13											7.7	65
30	Wed.	1.070	97	7.02			1.09	170	1517	5.73	51.13	32.8	292.70	27.0	240.94	276	2463	7.6	63

TOTAL AVERAGE	40.270					24.530	1322.0	13716		280.89		1648.71		1374.46	2052.0	21541			
MAX	1.342	97.0	6.9			0.818	146.9	1524		56.18		329.74		274.89	228.0	2393	7.6	64.7	
MIN	0.980	97.0	6.8			-0.660	87.0	1193		44.41		279.10		238.82	132.0	1700	7.4	63.0	

7 DAY AVERAGE																			
WEEK 1	1.556					0.604	153.5	1342		57.30		315.68		283.28	233.0	2044	7.5	65.0	
WEEK 2	1.634					0.526	110.5	1776		79.10		430.55		335.69	196.0	3108	7.5	64.8	
WEEK 3	1.164					0.996	150.0	1462		48.94		330.68		275.74	220.0	2145	7.6	64.8	
WEEK 4	1.099					1.061	162.0	1520		44.41		279.10		238.82	239.0	2241	7.6	64.8	

Signature: _____
 Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT

Date: August, 2020

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DISCHARGE SERIAL # 001 - # 002

DAY OF MONTH	DAY OF WEEK	MGD		CBOD 5 DAY 20 °C		TOTAL SUSPENDED SOLIDS						AMMONIA NITROGEN		EFF. ph	EFF. TEMP. °F.	E. COLI #/100 ML	
		GOLF COURSE FLOW	EFF. FLOW MGD	EFF. MG/L	EFF. LBS/DAY	EFF. PHOS. MG/L	EFF. PHOS. LBS/DAY	EFF. TOTAL N (as N) MG/L	EFF. TOTAL N (as N) LBS/DAY	EFF. Cu MG/L	EFF. Cu LBS/DAY	EFF. MG/L	EFF. LBS/DAY				FINAL MG/L
1	Sat.	0.252	0.908														
2	Sun.	0.239	0.941														
3	Mon.	0.241	0.859													8.1	66
4	Tues.	0.237	0.903													8.1	65
5	Wed.	0.241	0.879	7	51	2.96	21.70	26.7	195.73	0.0357	0.2617	11	81	<0.50	0	8.3	66
6	Thurs.	0.249	0.891													8.1	66
7	Fri.	0.224	0.898	5	37							10	75	<0.50	0	8.3	67
8	Sat.	0.245	0.885														
9	Sun.	0.220	0.930														
10	Mon.	0.231	0.929													7.9	69
11	Tues.	0.219	0.911													8.0	69
12	Wed.	0.233	0.937	7	55	3.04	23.76	24.1	188.33	0.0373	0.2915	11	86	<0.50	0	8.3	67
13	Thurs.	0.220	0.910													8.0	68
14	Fri.	0.209	0.931	7	54							11	85	<0.50	0	8.3	69
15	Sat.	0.254	0.806														
16	Sun.	0.213	0.907														
17	Mon.	0.216	0.894													7.8	68
18	Tues.	0.215	0.855													7.9	67
19	Wed.	0.222	0.868	7	51	3.69	26.71	23.7	171.57	0.0323	0.2338	10	72	<0.50	0	8.2	68
20	Thurs.	0.243	0.837													7.9	67
21	Fri.	0.217	0.873	7	51							9	66	<0.50	0	8.2	68
22	Sat.	0.194	0.956														
23	Sun.	0.301	0.899														
24	Mon.	0.007	1.173													7.8	69
25	Tues.	0.000	1.140													7.9	69
26	Wed.	0.000	1.130	6	57	3.54	33.36	25.9	244.09	0.0337	0.3176	8	75	<0.50	0	8.2	70
27	Thurs.	0.000	1.160	7	68							8	77	0.78	8	8.2	70
28	Fri.	0.000	1.050													7.8	70
29	Sat.	0.000	1.020														
30	Sun.	0.000	1.070														
31	Mon.	0.123	0.897													7.7	68

TOTAL AVERAGE	5.5	29.245	53.0	424		105.53	799.72		1.1046	78.0	617	0.8	7.5				0.0	
MAX	0.2	0.943	6.6	53		26.38	199.93		0.2762	9.8	77	0.8	0.9			8.0	68	0.0
MIN	0.3	1.173	7.0	68		33.36	244.09		0.3176	11.0	86	0.8	7.5			8.3	70	0.0
MIN	0.0	0.806	5.0	37		21.70	171.57		0.2338	8.0	66	0.8	0.0			7.7	65	0.0

7 DAY AVERAGE																		
WEEK 1	0.2	0.897	6.0	44		21.70	195.73		0.2617	10.5	78	<0.50	0.0			8.2	66	0.0
WEEK 2	0.2	0.919	7.0	55		23.76	188.33		0.2915	11.0	86	<0.50	0.0			8.1	68	0.0
WEEK 3	0.2	0.863	7.0	51		26.71	171.57		0.2338	9.5	69	<0.50	0.0			8.0	68	0.0
WEEK 4	0.1	1.073	6.5	62		33.36	244.09		0.3176	8.0	76	0.8	3.8			8.0	70	0.0

City of Waverly
MONTHLY MONITORING REPORT

Date: August, 2020

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.6

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. °F
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Sat.	1.160					1.00												
2	Sun.	1.180					0.98												
3	Mon.	1.100	97	6.92	155	2180	1.06											7.3	64
4	Tues.	1.140	97	6.85			1.02											7.5	62
5	Wed.	1.120	97	6.90			1.04	142	1326	4.40	41.10	31.0	289.56	25.6	239.12	248	2317	7.6	62
6	Thurs.	1.140	97	6.92			1.02											7.7	65
7	Fri.	1.120	97	6.90	130	1990	1.04	114	1065							196	1831	7.5	64
8	Sat.	1.130					1.03												
9	Sun.	1.150					1.01												
10	Mon.	1.160	97	6.92	145	2340	1.00											7.4	66
11	Tues.	1.130	97	6.90			1.03											7.4	66
12	Wed.	1.170	97	6.94			0.99	124	1210	4.73	46.15	26.9	262.48	22.7	221.50	204	1991	7.6	63
13	Thurs.	1.130	97	6.89			1.03											7.4	66
14	Fri.	1.140	97	6.94	170	2340	1.02	176	1673							348	3309	7.5	64
15	Sat.	1.060					1.10												
16	Sun.	1.120					1.04												
17	Mon.	1.110	98	6.94	150	2430	1.05											7.5	65
18	Tues.	1.070	97	6.94			1.09											7.4	63
19	Wed.	1.090	97	6.90			1.07	175	1591	5.73	52.09	30.4	276.35	25.9	235.45	304	2764	7.6	64
20	Thurs.	1.080	97	6.89			1.08											7.5	67
21	Fri.	1.090	97	6.95	155	2360	1.07	155	1409							258	2345	7.5	64
22	Sat.	1.150					1.01												
23	Sun.	1.200					0.96												
24	Mon.	1.160	97	6.87	308	2250	0.98											7.5	68
25	Tues.	1.140	97	6.86			1.02											7.6	66
26	Wed.	1.130	97	6.91			1.03	150	1414	5.42	51.08	30.0	282.73	26.0	245.03	228	2149	7.6	65
27	Thurs.	1.160	97	6.92	285	2280	1.00	135	1306							240	2322	7.5	65
28	Fri.	1.050	98	6.91			1.11											7.4	67
29	Sat.	1.020					1.14												
30	Sun.	1.070					1.09												
31	Mon.	1.020	97	6.95	170	2320	1.14											7.5	67

TOTAL AVERAGE	34.710						32.250	1171.0	10994		190.42		1111.13		941.10	2026.0	19026			
MAX	1.200	98.0	7.0				1.040	146.4	1374		47.61		277.78		235.28	253.3	2378		7.5	64.9
MIN	1.020	97.0	6.9				0.960	114.0	1065		41.10		262.48		221.50	196.0	1831		7.3	62.0

7 DAY AVERAGE																				
WEEK 1	1.137						1.023	128.0	1196		41.10		289.56		239.12	222.0	2074		7.5	63.4
WEEK 2	1.144						1.016	150.0	1442		46.15		262.48		221.50	276.0	2650		7.5	63.4
WEEK 3	1.089						1.071	165.0	1500		52.09		276.35		235.45	281.0	2554		7.5	63.4
WEEK 4	1.144						1.016	142.5	1360		51.08		282.73		245.03	234.0	2235		7.5	66.2

Signature: _____
Certification Number: 3989

City of Waverly
MONTHLY MONITORING REPORT
DISCHARGE SERIAL # 001 - # 002

Date: July, 2020

Facility Number 0990001
Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	MGD	GOLF COURSE FLOW	EFF. FLOW MGD	CBOD 5 DAY 20 °C		EFF. PHOS. MG/L	EFF. PHOS. LBS/DAY	EFF. TOTAL N (as N) MG/L	EFF. TOTAL N (as N) LBS/DAY	EFF. Cu MG/L	EFF. Cu LBS/DAY	TOTAL SUSPENDED SOLIDS		AMMONIA NITROGEN		EFF. pH	EFF. TEMP. °F.	E. COLI #/100 ML
					EFF. MG/L	EFF. LBS/DAY							EFF. MG/L	EFF. LBS/DAY	FINAL MG/L	FINAL LBS/DAY			
1	Wed.	0.000	1.980	8	132	2.03	33.52	16.3	269.17	0.0270	0.4459	16	297	<0.50	0	8.3	63	7.5	
2	Thurs.	0.264	1.526	8	102							15	191	<0.50	0	8.2	64		
3	Fri.	0.203	1.507																
4	Sat.	0.224	1.306																
5	Sun.	0.280	1.400													8.1	64		
6	Mon.	0.266	1.274													8.1	64		
7	Tues.	0.282	1.288													8.1	65		
8	Wed.	0.233	1.317	8	88	2.32	25.48	18.1	198.81	0.0263	0.2889	14	154	<0.50	0	8.3	65	7.5	
9	Thurs.	0.052	1.798													8.1	66		
10	Fri.	0.000	1.620	8	108							16	216	0.67	9	8.2	66		
11	Sat.	0.000	1.500																
12	Sun.	0.000	1.580																
13	Mon.	0.000	1.440													8.0	64		
14	Tues.	0.000	1.810													8.1	65		
15	Wed.	0.000	1.550	9	116	2.33	30.12	18.4	237.86	0.0270	0.3490	16	207	<0.50	0	8.3	65	27.0	
16	Thurs.	0.000	1.530													8.0	64		
17	Fri.	0.000	1.490	6	75							14	174	<0.50	0	8.2	65		
18	Sat.	0.000	1.400																
19	Sun.	0.000	1.410																
20	Mon.	0.000	1.440													8.0	65		
21	Tues.	0.000	1.450													8.0	65		
22	Wed.	0.000	1.380	7	81	2.46	28.31	20.3	233.64	0.0317	0.3648	12	138	<0.50	0	8.2	66	33.0	
23	Thurs.	0.000	1.350													8.0	65		
24	Fri.	0.000	1.360	7	79							12	136	<0.50	0	8.2	66		
25	Sat.	0.000	1.270																
26	Sun.	0.000	1.370																
27	Mon.	0.200	0.990													8.1	67		
28	Tues.	0.225	1.035													8.1	66		
29	Wed.	0.247	0.993	7	58	2.75	22.77	21.1	174.74	0.0495	0.4099	13	108	<0.50	0	8.3	68	12.0	
30	Thurs.	0.253	0.987													8.1	67		
31	Fri.	0.253	0.917	7	54							12	92	<0.50	0	8.3	67		

TOTAL AVERAGE	3.0	43.268	75.0	892		140.21		1114.21		1.8585	142.0	1713	0.7	9.1				87.0
MAX	0.1	1.396	7.5	89		28.04		222.84		0.3717	14.2	171	0.7	0.9	8.1	65	17.4	
MIN	0.3	1.980	9.0	132		33.52		269.17		0.4459	18.0	297	0.7	9.1	8.3	68	33.0	
	0.0	0.917	6.0	54		22.77		174.74		0.2889	12.0	92	0.7	0.0	8.0	63	7.5	

7 DAY AVERAGE																		
WEEK 1	0.2	1.469	8.0	117		33.52		269.17		0.4459	16.5	244	<0.50	0.0	8.2	64	7.5	
WEEK 2	0.0	1.581	8.0	98		25.48		198.81		0.2889	15.0	185	0.7	4.5	8.1	65	7.5	
WEEK 3	0.0	1.467	7.5	95		30.12		237.86		0.3490	15.0	190	<0.50	0.0	8.1	65	27.0	
WEEK 4	0.1	1.251	7.0	80		28.31		233.64		0.3648	12.0	137	<0.50	0.0	8.1	66	33.0	

City of Waverly
MONTHLY MONITORING REPORT

Date: July, 2020

DISCHARGE SERIAL # 001 - # 002

Facility Number 0990001

Note: 0.0 = <MDL of 0.5

DAY OF MONTH	DAY OF WEEK	DIGESTER CONTENTS					TRICKLING FILTER RECIRC. FLOW MGD	BOD 5 DAY 20 °C		INF. PHOS. MG/L	INF. PHOS. LBS/DAY	TOTAL N (as N) MG/L	INF. TOTAL N (as N) LBS/DAY	INF. TKN (as N) MG/L	INF. TKN (as N) LBS/DAY	TOTAL SUSPENDED SOLIDS		RAW ph	RAW TEMP. °F
		FLOW MGD	TEMP °F	ph	VOL. ACID MG/L	ALKALIN. MG/L		INF. MG/L	INF. LBS/DAY							INF. MG/L	INF. LBS/DAY		
1	Wed.	1,980	97	7.01			0.18	102	1684	3.02	49.87	18.2	300.54	11.3	186.60	172	2840	7.6	60
2	Thurs.	1,790	98	7.02	170	2680	0.37	79	1179							148	2209	7.8	61
3	Fri.	1,710					0.45												
4	Sat.	1,530					0.63												
5	Sun.	1,680	98	6.90			0.48											7.5	61
6	Mon.	1,540	97	6.94	170	2630	0.62											7.5	63
7	Tues.	1,570	97	6.93			0.59											7.5	62
8	Wed.	1,550	97	6.95			0.61	128	1655	3.94	50.93	23.0	297.32	15.5	200.37	228	2947	7.6	61
9	Thurs.	1,850	97	6.92			0.31											7.6	63
10	Fri.	1,620	97	6.97	140	2600	0.54	111	1500							232	3135	7.5	62
11	Sat.	1,500					0.66												
12	Sun.	1,580					0.58												
13	Mon.	1,440	97	6.90	155	2500	0.72											7.3	64
14	Tues.	1,810	97	6.91			0.35											7.5	63
15	Wed.	1,550	97	6.94			0.61	122	1577	3.87	50.03	22.6	292.15	16.6	214.59	228	2947	7.6	62
16	Thurs.	1,530	97	6.88			0.63											7.4	62
17	Fri.	1,490	97	6.93	135	2410	0.67	86	1069							136	1690	7.6	62
18	Sat.	1,400					0.76												
19	Sun.	1,410					0.75												
20	Mon.	1,440	97	6.89	145	2380	0.72											7.5	63
21	Tues.	1,450	97	6.88			0.71											7.7	62
22	Wed.	1,380	97	6.94			0.78	123	1416	4.33	49.83	24.9	286.58	17.5	201.41	216	2486	7.6	62
23	Thurs.	1,350	97	6.86			0.81											7.4	62
24	Fri.	1,360	97	6.87	155	2240	0.80	100	1134							188	2132	7.5	62
25	Sat.	1,270					0.89												
26	Sun.	1,370					0.79												
27	Mon.	1,190	97	6.85	160	2160	0.97											7.4	65
28	Tues.	1,260	97	6.85			0.90											7.4	63
29	Wed.	1,240	97	6.90			0.92	141	1458	4.30	44.47	25.4	262.68	19.0	196.49	240	2482	7.6	63
30	Thurs.	1,240	97	6.87			0.92											7.4	65
31	Fri.	1,170	97	6.89	145	2250	0.99	141	1376							250	2439	7.5	63

TOTAL AVERAGE	46,250						20,710	1133.0	14048		245.13		1439.27		999.46	2038.0	25309		
MAX	1,492	97.1	6.9				0.668	113.3	1405		49.03		287.85		199.89	203.8	2531	7.5	62.4
MIN	1,980	98.0	7.0				0.990	141.0	1684		50.93		300.54		214.59	250.0	3135	7.7	65.0
	1,170	97.0	6.9				0.180	79.0	1069		44.47		262.68		186.60	136.0	1690	7.3	60.0

7 DAY AVERAGE																			
WEEK 1	1,686						0.474	90.5	1432		49.87		300.54		186.60	160.0	2525	7.5	61.4
WEEK 2	1,621						0.539	119.5	1577		50.93		297.32		200.37	230.0	3041	7.5	61.6
WEEK 3	1,467						0.693	104.0	1323		50.03		292.15		214.59	182.0	2319	7.6	62.0
WEEK 4	1,311						0.849	111.5	1275		49.83		286.58		201.41	202.0	2309	7.5	62.8

Signature: _____
Certification Number: 3989

City of Waverly
Department of Public Works
FY 2021-22

STORM AND SANITARY SEWER LINE MAINTENANCE

The Storm/Sanitary Sewer Maintenance Division was established in FY 1990-91. Its function is to maintain the sewer systems and assist the Street, WPC, and Water Divisions as needed with major projects. Its purpose is two-fold: to establish an effective annual maintenance program to control long-term upkeep costs and to establish a more efficient operation of our sewer systems. This will utilize the budgeted money more efficiently, reduce wastewater treatment costs, and upgrade instead of maintaining our storm/sanitary sewers.

The following is a brief overview of some projects during FY 2021-22. This is not a total summary but does give an idea of the versatility of this division and the expertise required. Of our 336,770 feet of sanitary sewer mains, over 75,000 feet were cleaned and 2,300 feet were televised. Several problem areas are being scheduled for repair or replacement as time and funds become available.

FUTURE PROJECTS

1. Update sanitary and storm sewer GIS mapping as more discrepancies are found; including cleaning records of all sewer mains.
2. Continue work on storm sewer intakes and catch basins and replace old brick structures with poured concrete structures.
3. Concentrate on televising the sewer lines in Eastgate and Monaghan subdivisions.
4. Maintain a five-year sanitary sewer cleaning schedule.

AREA OF CONCERN

1. Infiltration and inflow problems must continue to be addressed with some major financing.
2. Tree roots in sanitary sewer lines.
3. Undersized/aged storm sewer pipes on 3rd Avenue SW, 2nd Avenue SW and other numerous outfalls to the river.

Storm and Sanitary Sewer Line Maintenance

Fiscal Year 2021-22

	<u>2017-18¹</u>	<u>2018-19</u>	<u>2019-20</u>	<u>2020-21</u>	<u>2021-22</u>	<u>Units</u>
<u>Sanitary Sewer Maintenance</u>						
Lines Cleaned	61,503	29,698 ²	86,403	62,823	75,113	Feet
Manholes Cleaned	3	5	34	51	8	Each
<u>Storm Sewer Maintenance</u>						
Lines Cleaned	6,578	5,287	6,632	1,316	400	Feet
Intakes & MH Cleaned	21	57	29	26	31	Each
<u>Televising Lines</u>						
Sanitary Sewer	7,689	3,450	4,169	5,221	2,308	Feet
Storm Sewer	120	360	2,231	1,175	419	Feet
<u>Jetting Sewer Mains</u>						
Water Used	133,200	95,925	189,750	133,510	164,580	Gallons
<u>Lines Repaired</u>						
Sanitary Sewer	0	1	5	6	0	Each
Storm Sewer	7	3	8	7	2	Each
<u>Intakes Repaired</u>						
	0	2	0	0	2	Each
<u>Manholes Repaired</u>						
	18	0	0	1	0	Each
<u>Sewer Call-Outs</u>						
<i>During & after hours</i>	10	12	18	14	9	Each
<u>Other Division Work</u>						
Streets - Snow Plowing	36.6	18.2	20	0	6.2	Hours
Water - Leak Repairs	100.4	200.6	180	165	74.7	Hours
WPC - Lift Stations	16.6	19	4	16	1	Hours
Leisure Serv. - Cem. Graves	13	40	27	12	24	Each
Leisure Serv. - Golf Course	0	0	3	0	0	Hours
Engineering - Inspections	0	0	1	1	12	Hours

¹ During 2017-18: September, February & March records were missing.

² Designated area of focus was smaller and contains newer lines than prior years.

Miscellaneous:

Cleaned out waterways, detention areas & Dry Run. Cleaned drains for Water Dept., Law Center, bike trail bathrooms, hospital pits & drains and pumped Airport septic. Root-treated in problem sewer mains.

City of Waverly
Department of Public Works
FY 2021-22

SOLID WASTE

Recycling

Voluntary Drop-Off Program
Curbside Collection Program

Refuse Collection

Residential
Commercial
Yard Waste – Drop-Off Site

Refuse Container (Dumpster)

Repair

Special Collections

Waverly Horse Sale – Fall & Spring
Chamber – Agriculture Appreciation Day
Bremer County Fair
Wartburg College – Move In / Move Out
Heritage Days
Special Collection Weeks – Spring and Fall
Other Special Events

The Solid Waste Division collects refuse once a week from residential customers and up to five days per week from commercial. Garbage that is picked up in the City of Waverly needs to be in a City-owned garbage container or dumpster. Residential customers can rent a 35- or 65-gallon City-owned garbage container. Commercial customers can use either a City dumpster or a city-owned garbage container. Curbside recycling runs every other week. The average stops per day is 382. Recycling is a one-man operation, which one refuse collector runs each month.

The Recycling Center is open Monday through Friday from 7:00 a.m. to 5:30 p.m. and from 8:00 a.m. to 4:00 p.m. on Saturdays. Two part-time employees operate the Recycling Center each day, each working half a day, including Saturday. Four part-time employees at the Recycling Center. The average number of cars through the center each day is 122.

Yard Waste Site

Along with the Recycling Center, the City also operates a Yard Waste Site from April through November. Four part-time employees operate the Yard Waste Site. Leaves, grass clippings, garden waste, trees, and branches are accepted at no charge. General trash and bulky items such as, appliances, furniture, tires, and carpeting are also collected here for a fee while it is open. The average number of cars through the yard waste site each day is 86.

City of Waverly – Public Works
Solid Waste Division
Recycling Statistics
FY 2021-22

Recycling Center Car Count – Monday - Saturday
Total.....36,935 Daily Average..... 122

Recycling Center Car Count – Saturday only
Total..... 7,798 Monthly Average..... 650

Curbside Recycling Stops
Total.....49,626 Monthly Average.....4,135

Total Weight of the Recycled Products from the Recycling Center: 649 tons

Total Weight of the Recycled Products from the Curbside Recycling Route: 344 tons

Revenue from the recycled products: \$65,032

- In January 2022, the City started taking all sorted recycling to Republic Services and in May 2022, we started taking all commingled recycling there as well. During the first 5 months of this change, the market was high and the City received rebates from Republic Services. Recycling rebates and costs will fluctuate with the market.

Other items or materials recycled by the City of Waverly:

- 30 tons of steel, old sewer castings, signs, poles, plow blades, and miscellaneous pieces
- 31 tires
- 365 appliances
- 3,075 gallons of oil
- 292 electronics (computers, televisions, monitors, and printers)

Yard Waste Site total car count: 18,258
(July - Nov 2021 and March – June 2022):

Monthly car count average: 2,029

Busiest months: November 2021 and May 2022

110 tons of finished compost produced from yard waste received.
1,577 tons of brush and trees were ground up to make wood mulch.

City of Waverly - Public Works
Solid Waste Division
Employee Hours
FY 2021-22

<u>Refuse Collections</u>	<u>Hours</u>
Residential	<u>1,729</u>
Commercial	<u>2,626</u>
Black Hawk Co. Landfill	<u>1,037</u>
Temporary Dumpsters	<u>318</u>
Corrugated Collection	<u>448</u>
Special Pickups	<u>42</u>
Curbside Recycling Pick-up	<u>898</u>
Recycle Center Duties	<u>127</u>
Container Exchanges	<u>161</u>
Building/Vehicle Maintenance	<u>557</u>
Dumpster Repairs	<u>175</u>
Republic, City Cedar Falls, Jendro	<u>367</u>
Misc. Activity (training, etc)	<u>115</u>
<u>Other Divisions</u>	
Street Division	
Snow Plowing & Removal	<u>207</u>
Other (Patching, Mowing, Tree Trimming, Etc)	<u>157</u>
Water Division Projects	<u>0</u>
Sewer Maintenance Projects	<u>0</u>
Other Departments	<u>46</u>

City of Waverly - Public Works
Solid Waste Division

Recycling Center and Yard Waste Site

Car Counts

FY 2021-22

Recycling Center

Month	# of Days	Weekdays		Saturdays		Monthly Total	Daily Average
		car count	% of Total	car count	% of Total		
Jul-20	26	2,789	81%	653	19%	3,442	132
Aug-20	26	2,550	78%	701	22%	3,251	125
Sep-20	25	2,447	80%	616	20%	3,063	123
Oct-20	26	2,270	74%	792	26%	3,062	118
Nov-20	24	2,455	77%	741	23%	3,196	133
Dec-20	23	2,651	85%	467	15%	3,118	136
Jan-21	25	2,257	78%	619	22%	2,876	115
Feb-21	24	1,935	78%	531	22%	2,466	103
Mar-21	27	2,375	80%	603	20%	2,978	110
Apr-21	25	2,162	71%	863	29%	3,025	121
May-21	25	2,507	79%	685	21%	3,192	128
Jun-21	26	2,739	84%	527	16%	3,266	126
Total						36,935	122

Recycling Center - Car Count History

Fiscal Year	2017-18	2018-19	2019-20	2020-21	2021-22
Weekdays	30,434	32,839	44,718	31,840	29,137
Saturdays	9,658	10,241	8,345	9,227	7,798
Totals	40,092	43,080	53,063	41,067	36,935

Yard Waste Site - Car Count History

Fiscal Year	2017-18	2018-19	2019-20	2020-21	2021-22
Totals	20,767	22,123	22,896	21,156	18,258

City of Waverly - Public Works

Solid Waste Division

Curbside Recycling

Number of Recycling Stops - Residential & Commercial						
FY 2021-22						
Week Beginning	Mon	Tues	Wed	Thurs	Fri	Weekly Totals
6/28/2021	357	361	380	425	402	1,925
7/12/2021	371	370	391	405	390	1,927
7/26/2021	361	331	396	372	427	1,887
8/9/2021	351	337	382	408	382	1,860
8/23/2021	350	373	396	426	408	1,953
9/6/2021		816	427	401	416	2,060
9/20/2021	352	390	427	429	421	2,019
10/4/2021	379	314	386	389	375	1,843
10/18/2021	350	349	363	378	363	1,803
11/1/2021	392	394	404	437	415	2,042
11/15/2021	371	364	402	436	385	1,958
11/29/2021	390	379	412	440	390	2,011
12/13/2021	370	405	390	381	372	1,918
12/27/2021		729	370	425	378	1,902
1/10/2022	364	329	421	430	390	1,934
1/24/2022	344	350	358	413	380	1,845
2/7/2022	308	375	356	270	334	1,643
2/21/2022	340	328	351	412	334	1,765
3/7/2022	314	353	376	369	367	1,779
3/21/2022	365	315	372	398	378	1,828
4/4/2022	378	371	416	422	396	1,983
4/18/2022	374	336	413	424	401	1,948
5/2/2022	361	366	421	436	415	1,999
5/16/2022	382	423	432	435	408	2,080
5/30/2022	371	400	352	426	377	1,926
6/13/2022	333	335	361	378	381	1,788
6/27/2022	378	400	415	425	402	2,020
Total for the FY 2021-22						49,626
Average Daily Stops						382

City of Waverly

Recycling Quantities

2021-22

Sorted Recycling Collected at Recycling Center

	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	TOTAL	
Paper, Bond	lbs.		6,075	4,585		3,085	5,150	5,445	3,400		10,140		3,180	41,060
Slick Paper / Magazines	lbs.		8,460	4,965		6,370	9,050	3,760	4,180		5,760		6,420	48,965
Newsprint	lbs.		7,490	4,930		6,700	6,450	3,965	2,860		5,480		9,140	47,015
Corrugation/Chipboard	lbs.	61,800	79,330	90,290	71,260	88,945	86,415	59,455	66,200	76,660	70,660	73,080	94,920	919,015
#3, 4, 5, 6, 7 Plastics	lbs.	5,500	8,460	4,860	3,640	7,720	3,620	3,940	12,500	3,920	4,140	4,260	9,200	71,760
Steel / Alum	lbs.		4,546	4,140	4,071	6,780	5,935	3,480	5,040	7,398	5,200	6,680	6,660	59,930
Books	lbs.		4,225	4,435		3,650	2,815	3,535	5,620		2,840		1,600	33,420
Styrofoam**	lbs.	540	580	580	620	580	760	600	420	620	460	540	560	6,860
Clear Glass*	lbs.	9,160	8,800	4,640	4,400	9,560	4,180	4,440	4,680	4,940	4,400	5,000	9,560	73,760
Totals - Sorted Recycling		77,000	127,966	123,425	83,991	133,390	124,375	88,620	104,900	93,538	109,080	89,560	141,240	1,297,085

* City takes glass to City of Cedar Falls and they recycle at no cost to us. (Effective Jan. 1, 2021 - \$50 per load)

Total Tons **649**

**City takes styrofoam to City of Cedar Falls and they recycle at no cost to us. (Effective Jan. 1, 2021 - \$50 per load)

Note: Changed sorted recycling service provider. 1/18/22 ended with Quincy and began with Republic

Commingled Recycling Picked up Curbside (Jendro/Republic*)

	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	TOTAL	
Totals - Commingled Recycling	lbs.	58,560	56,080	54,160	67,380	57,040	66,420	53,440	49,920	50,000	50,800	53,400	70,960	688,160

Aluminum, Cardboard, Slick Paper, Newspapers, Bond Paper, Plastics & Metal Cans

Total Tons **344**

*Note: Changed commingled recycling service provider (counsel signed Resolution 5/16/22) from Jendro to Republic

TOTAL RECYCLING

	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	TOTAL	
TOTALS - Sorted & Commingled Recycling	lbs.	135,560	184,046	177,585	151,371	190,430	190,795	142,060	154,820	143,538	159,880	142,960	212,200	1,985,245

Total Tons **993**

Motor Oil Collected at Recycling Center

	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	TOTAL	
Motor Oil	gal.	475	200	200	175	100	300		575	200	175	375	300	3,075

City of Waverly

Solid Waste and Recycling Revenues

FY 2021-22

new column trip/delivery \$

Date	Solid Waste					Recyclables Collected at Recycling Center & YWS				Total Recyclable Revenue	Total SOLID WASTE & RECYCLABLE REVENUE
	Utility Billing 670-840-4500	Sticker Sales 670-840-4552	Bulky Items dump vol & extra volume	Temp. Dumpsters & Misc.	Total Solid Waste Revenue	Paper Products	Steel & Aluminum	Metro Redemption	Recycled Bulky Items		
Jul-21	140,544.35	1,390.00	1,861.34	75.00	143,870.69	2,824.57		456.82	1,526.00	4,807.39	148,678.08
Aug-21	134,705.84	1,250.00	2,449.57	325.00	138,730.41	2,650.05	271.00	256.30	1,013.00	4,190.35	142,920.76
Sep-21	135,677.67	5,390.00	4,093.23	275.00	145,435.90	4,257.75	227.70	127.55	1,076.00	5,689.00	151,124.90
Oct-21	138,287.06	0.00	3,585.87	250.00	142,122.93	770.52	231.18	278.55	1,146.00	2,426.25	144,549.18
Nov-21	143,963.12	740.00	3,526.14	575.00	148,804.26	9,320.55		188.35	1,163.00	10,671.90	159,476.16
Dec-21	141,497.71	8,595.00	2,086.08	250.00	152,428.79	1,621.28	392.94	358.50	417.00	2,789.72	155,218.51
Jan-22	140,696.19	530.00	1,234.20	25.00	142,485.39	8,289.40	619.14	171.05	271.00	9,350.59	151,835.98
Feb-22	137,459.14	25.00	902.00	75.00	138,461.14	2,845.01	277.20	316.15	2,235.97	5,674.33	144,135.47
Mar-22	152,022.66	1,725.00	1,898.00	575.00	156,220.66	2,552.40	375.00	243.30	768.00	3,938.70	160,159.36
Apr-22	141,366.42	1,235.00	3,581.72	150.00	146,333.14	3,241.55	653.88	170.55	1,423.00	5,488.98	151,822.12
May-22	146,832.14	27.50	2,200.50		149,060.14	3,272.15	416.00	175.40	872.00	4,735.55	153,795.69
Jun-22	144,648.47	292.50	2,626.97	130.00	147,697.94	2,987.25	400.80	210.25	1,671.00	5,269.30	152,967.24
TOTALS	1,697,700.77	21,200.00	30,045.62	2,705.00	\$ 1,751,651.39	44,632.48	3,864.84	2,952.77	13,581.97	65,032.06	1,816,683.45
Received from Black Hawk County Landfill to assist with funding of recycling & waste reduction 10/21/2021										3,729.49	
TOTAL REVENUES										\$	1,820,412.94

City of Waverly
Solid Waste Landfill Disposal Quantities

		2017-18	2018-19	2019-20	2020-2021	2021-22
		Tons	Tons	Tons	Tons	Tons
July	<i>Residential:</i>	158.78	164.02	179.52	183.05	173.05
	<i>Commercial:</i>	209.73	234.22	251.84	228.91	222.94
		368.5	398.2	431.4	412.0	396.0
August	<i>Residential:</i>	176.28	173.3	174.43	181.94	191.26
	<i>Commercial:</i>	232.62	257.79	237.82	210.23	267.1
		408.9	431.1	412.3	392.2	458.4
September	<i>Residential:</i>	148.59	148.84	155.87	164.78	170.83
	<i>Commercial:</i>	223.61	234.61	255.85	250.08	247.42
		372.2	383.5	411.7	414.9	418.3
October	<i>Residential:</i>	159	156.12	161.24	165.54	160.62
	<i>Commercial:</i>	248.32	266.49	263.37	236.28	236.66
		407.3	422.6	424.6	401.8	397.3
November	<i>Residential:</i>	155.13	165.1	149.74	162.73	172.45
	<i>Commercial:</i>	216.51	222.06	217.33	197.49	230.84
		371.6	387.2	367.1	360.2	403.3
December	<i>Residential:</i>	142.86	146.1	167.39	174.92	152.79
	<i>Commercial:</i>	178.67	209.3	218.99	201.74	214.36
		321.5	355.4	386.4	376.7	367.2
January	<i>Residential:</i>	155.33	138.16	152.4	151.99	166.06
	<i>Commercial:</i>	233.55	188.87	225.98	183.39	211.3
		388.9	327.0	378.4	335.4	377.4
February	<i>Residential:</i>	122.64	144	120.98	137.68	141.14
	<i>Commercial:</i>	196.97	195.31	198.78	181.67	210.4
		319.6	339.3	319.8	319.4	351.5
March	<i>Residential:</i>	144.68	138.02	136.48	163.92	155.36
	<i>Commercial:</i>	214.08	223.63	224.76	253.53	242.91
		358.8	361.7	361.2	417.5	398.3
April	<i>Residential:</i>	132.94	158.3	174.37	168.61	163.33
	<i>Commercial:</i>	242.11	258.12	187.07	233.48	227.19
		375.1	416.4	361.4	402.1	390.5
May	<i>Residential:</i>	157.53	173.41	173.44	155.09	164.99
	<i>Commercial:</i>	266.98	266.61	212.69	251.99	289.28
		424.5	440.0	386.1	407.1	454.3
June	<i>Residential:</i>	134.14	152.17	172.82	162.4	183.36
	<i>Commercial:</i>	220.81	220.18	250.05	261.38	243.28
		355.0	372.4	422.9	423.8	426.6
TOTAL		4,471.9	4,634.7	4,663.2	4,662.8	4,838.9

City of Waverly - Public Works
Solid Waste Division
Bulky Items Collection

FY 2021-22

	2021						2022						Total	
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Special Collection Week	May		June
Appliances w/Freon						<i>*Yard Waste Site Closed</i>								
Refrigerators	5	5	9	7	6					12	1	8	6	59
Freezers	4	0	2	1	3					3	2	3	3	21
Air Conditioners	4	1	1	1	2					1	0	4	1	15
Dehumidifiers	5	6	5	10	4					5	4	7	10	56
Appliances w/out Freon														
Water Heater/Furnace	3	1	1	0	1					5	0	4	3	18
Water Softener	1	2	1	1	2					2	1	1	1	12
Stove	1	0	3	0	1					6	3	2	2	18
Washer	4	3	2	0	1					2	5	4	4	25
Dryer	2	1	3	0	1					4	4	2	2	19
Dishwasher	1	3	2	0	3					1	3	3	5	21
Humidifier	0	0	1	1	0					1	4	0	0	7
Gas Grill	3	0	0	0	0					0	5	2	2	12
Microwave	17	10	7	6	7					14	5	7	9	82
Electronics														
Televisions	2	15	39	31	23					44	18	16	35	223
Monitors	1	5	0	1	0					3	1	2	6	19
Printers	0	1	0	6	4					3	2	6	3	25
Computers	0	4	4	1	4					2	1	3	6	25
Tires														
Car	0	2	0	10	3					0	3	0	8	26
Truck	0	4	0	0	0					0	0	0	0	4
Tractor		0	0	1	0					0	0	0	0	1
TOTAL	53	63	80	77	65	0	0	0	0	108	62	74	106	688

**Bulky Items are collected at the Public Services site during the winters months that the Yard Waste Site is closed.*

City of Waverly
Department of Public Works
FY 2021-22

ENGINEERING

Please refer to the separate Engineering Annual Report

City of Waverly
Department of Public Works
FY 2021-22

AIRPORT

Please refer to the separate Airport Annual Report