WASTEWATER TREATMENT FACILITY UPDATE

SUMMER 2025

Final planned sanitary sewer fee increase in effect with August bill

Due to costs related to the wastewater treatment project, sanitary sewer fees nearly doubled between 2022 and 2025. This significant increase was necessary to finance the construction and debt payments for the upgrades to the facility. After completing a rate study in 2020, the city council approved a plan to phase in the fee increases over a period of years. The final planned increase went into effect on July 1, 2025 and is included in the August billing statement. In 2026 and beyond, a 4% increase will occur annually in July to keep pace with inflation and other rising costs.

SERVICE FEE: This is a flat fee charged to all customers of the sanitary sewer plant. This fee has increased by a set amount from 2022 through 2025 as shown in the table below. The final planned rate increase went into effect on July 1, 2025 and will appear in the August billing statement. Going forward, the fee will increase by 4% annually.

2022	2023	2024	2025	2026
$8.50	$12.00	$15.00	$20.00	$20.80

INFRASTRUCTURE FEE: This fee helps fund capital improvements at the wastewater treatment facility. The amount is based on the customer's water meter size and is applied whether or not a user has active water service. This fee increased by a set amount through July 2025 as shown below, and then will increase by 4% per year in 2026 and beyond.

WATER METER SIZE	2022	2023	2024	2025	2026
Less than 1" meter	$4.00	$6.00	$10.00	$13.00	$13.52
1-inch meter	**$7.50**	**$11.00**	**$20.00**	**$27.00**	**$28.08**
1 1/4-inch meter	$8.60	$13.00	$23.00	$30.00	$31.20
1 1/2-inch meter	**$9.90**	**$15.00**	**$27.00**	**$36.00**	**$37.44**
2-inch meter	$14.90	$22.00	$39.00	$50.00	$52.00
3-inch meter	**$24.80**	**$37.00**	**$66.00**	**$85.00**	**$88.40**
4-inch meter	$47.50	$68.00	$120.00	$160.00	$166.40

USAGE FEE: This fee is based on how much water your home or business uses. This fee is used for debt service, operating, maintenance and replacement costs. The usage fee rate also saw annual adjustments through 2025, as shown below. In 2026 and beyond, fees will increase by 4% per year. Fees are charged per 100 cubic feet (CF) of water used.

2022	2023	2024	2025	2026
$6.05	$6.75	$7.60	$8.55	$8.89

Project financing

The majority of the sanitary sewer rate increase is necessary to pay the debt on a construction loan approved for up to $30,785,000.

Poject financing was obtained through the State Revolving Fund (SRF) loan program for a 20-year term at a 2.5% interest rate. The nearly $2 million annual debt payments will begin in 2026. Some revenue, which was collected with rate increases, will be used to reduce the overall amount which needs to be borrowed.

Project timeline: *WWTF Nutrient Reduction Upgrade*

2015	Nutrient Reduction Study evaluating options begins
2018	Nutrient Reduction Study Completed
2021	Updated sewer rate ordinance adopted
2020 to 2023	Preliminary and final design
Winter 2024	Bid letting
Spring 2024	Construction contract awarded to Woodruff Construction
July 2024	Construction begins
2024 to 2025	Construction throughout the 2024 and 2025 construction seasons
October 1, 2025	Complete construction of Nutrient Reduction Improvements
Fall 2026	Complete construction of all improvements

Frequently Asked Questions

What are the goals of this project?

- **Reduce Nutrient output** – This project is driven by the need to reduce the nutrient levels exiting the plant. The Iowa DNR has required all major wastewater facilities to implement treatment processes for reducing nitrogen and phosphorus in the facility effluent. Nutrient runoff causes water quality issues throughout the Mississippi watershed all the way to the Gulf of Mexico. Improvements at the Algona plant will reduce output of total nitrogen by 66% and total phosphorus 75%. This element of the project accounts for nearly $20 million of the total project cost.
- **Increase Flow and Loading Capacity** – As more major storm events occur, increased capacity at the facility is needed to reduce system back-ups. The plant's peak capacity will be increasing by nearly 30% from 4.72 to 6.08 million gallons/day. Critical equipment is also being raised which will improve operations during storms and when the river level is high.
- **Address Age Related Equipment and Structure Concerns** – Several major pieces of equipment and structures have exceeded or are nearing the end of their useful life. Previously identified upgrades were intentionally deferred to coincide with this larger project.

How will wastewater be treated at the new plant?

The most significant upgrade at the plant is a change in the treatment process from a "trickling filter" facility to "suspended growth process using activated sludge" treatment system via an oxidation ditch. After initial screening, wastewater will flow into the oxidation ditch which is an oval-shaped channel that acts like a slow-moving racetrack. Helpful bacteria live in the water and break down waste as it moves through different stages. In the first stage, there is no oxygen in the water, which lets certain bacteria start removing nutrients. In the next stage, oxygen is added by slow-turning machines or bubbling air, allowing other bacteria to eat the remaining waste and change harmful ammonia into safer forms. Later, the oxygen is reduced again so bacteria can turn leftover nitrogen into harmless gas that escapes into the air.

Following the oxidation ditch, water travels into clarifiers and settling tanks where solids sink to the bottom and are removed. The water then flows through an Ultraviolet (UV) disinfection unit where powerful lamps shine UV light into the water killing bacteria like E.coli as well as harmful viruses and other microorganisms. Once the water passes through UV, it is clean enough to leave the plant by flowing into the river.

What impacts the overall cost of the project?

The complexity of maintaining plant operations while removing, replacing, and constructing new treatment systems and piping have impacted the overall costs. The project will require demolition and construction of new treatment systems at the city's existing wastewater facility, all while staying in operation.

How can I learn more about the wastewater treatment facility project?

To learn more about this project, contact Algona City Hall at 515-295-2411 or visit www.algonaiowa.gov/wastewater.