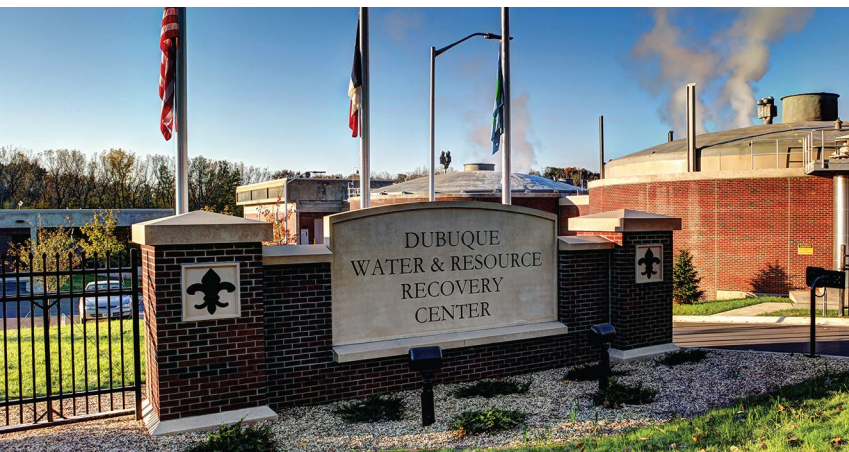


# Dubuque Water & Resource Recovery Center

## \$HOWING RETURN ON INVESTMENT



Dubuque's Water & Resource Recovery Center (WRRC), the City's wastewater treatment plant located on Julien Dubuque Drive, underwent a nearly \$70 million facility upgrade that was completed in 2013. At the time, it was the largest capital improvement project in the city's history. The new treatment system has been in operation for four fiscal years so it's a good time to review how this major investment is performing.

### what happens there?



When water and "other stuff" go down the drain in Dubuque, it ends up at the Water & Resource Recovery Center, which processes an average of **7 million gallons** of wastewater per day!



That's the equivalent of

**283 showers per minute**

entering the facility's treatment system!

Pure-oxygen biological treatment is used to clean the wastewater. Then, anaerobic digesters use helpful bacteria to convert the wastewater sludge into a **beneficial by-product, fertilizer for farm fields.**

### FROM BURNING WASTE (THE OLD PROCESS) TO PRODUCING A USEFUL PRODUCT

**15½ tons of soil amendment (fertilizer) are produced PER DAY**

That's an average of eight semi loads per week of useful material created instead of being burned!



## REDUCED OPERATING COSTS

Thanks to the ability to produce electricity and operational efficiencies, the facility's demand for grid-purchased electricity has dropped by 70-75%, from 1000 kilowatts down to just 250-300 kilowatts.

**ANNUAL ELECTRICITY COST SAVINGS! \$244,000**

Because of these efficiencies and the plant now producing its own electricity, annual electricity costs have dropped from \$579,205 in fiscal year (FY) 2011 to \$334,908 in FY2017.

**ANNUAL FUEL-OIL COST SAVINGS! \$300,000**

Before the facility upgrade, the bio-solids produced at the plant were incinerated. In FY2011, the City spent \$300,000 on fuel oil for this activity at the plant. **Because anaerobic digestion is now used, incineration is not needed so the City was able to reduce fuel costs by \$300,000 per year!**

**ANNUAL STAFFING COST SAVINGS! \$80,000**

Operating efficiencies of the WRRC now allow the plant to operate with one less employee, resulting in a cost savings of \$80,000 per year.

**\$624,000 TOTAL ANNUAL OPERATING COST SAVINGS**

