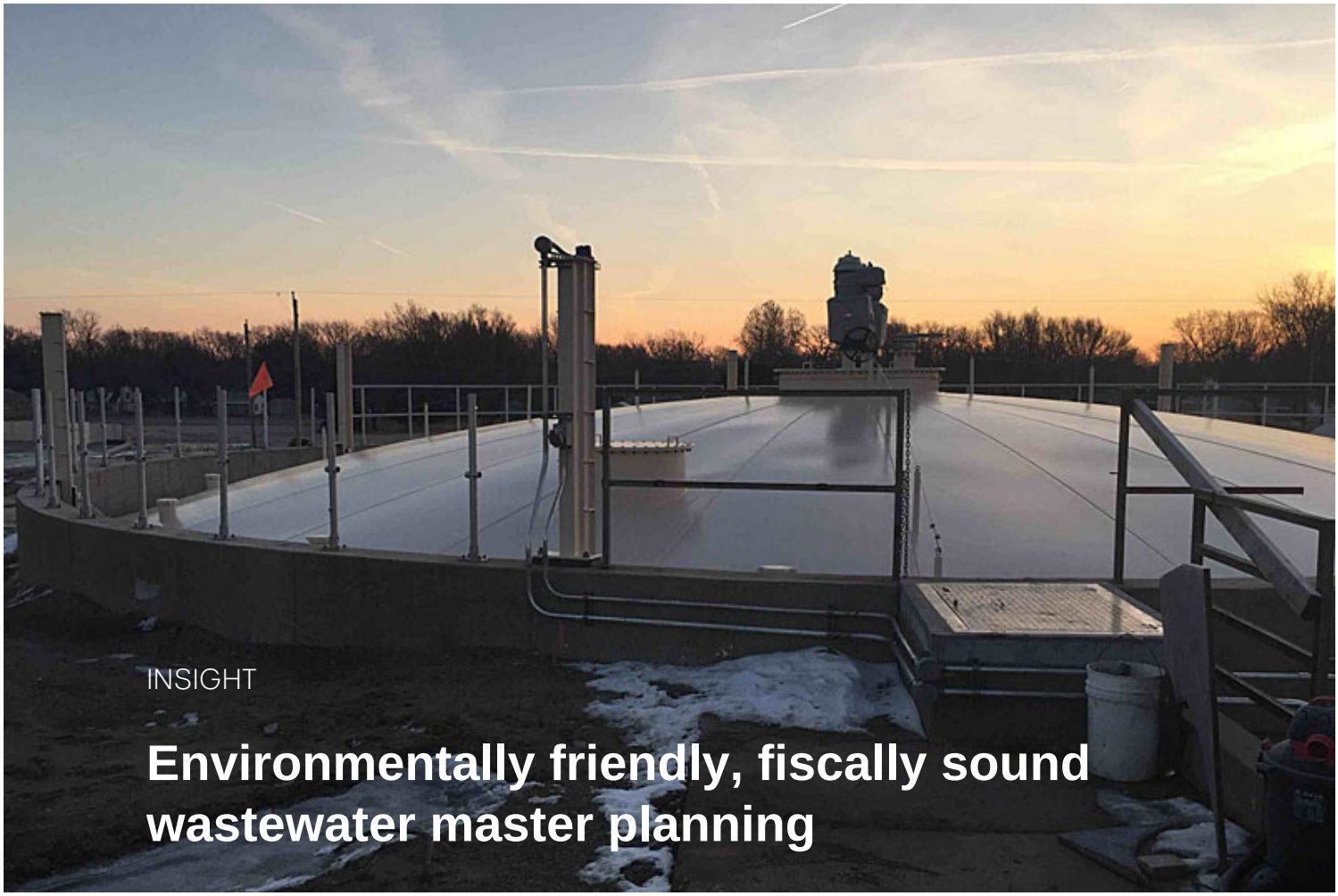


INSIGHT

Environmentally friendly, fiscally sound wastewater master planning

The following is a summary of the Biosolids Master Plan article originally published by TK Magazine in July 2021.

The City of Topeka, Bartlett & West and other entities have been working together for years to find innovative ways to make the City's wastewater treatment operations environmentally friendly as well as fiscally sound.

Lead engineer on the projects, Andrew Wright, PE, has worked at Bartlett & West for 16 years. Wright and others began developing the City's Biosolids Master Plan in 2016. Since then the City has been working on several projects including a biogas to renewable natural gas (RNG) system at the City's main wastewater treatment plant and enhancements to the sewer system to increase flows to the wastewater plants during rain events.

> *"It's gratifying to work on projects that have a positive effect on quality of life and economic growth."*
> Andrew Wright, Sr. Project Manager at
> Bartlett & West

Turning Biosolids into a Revenue Stream - Renewable Natural Gas (RNG)

After looking at ways the City could save money on processing and disposing of biosolids, an

alternative to turn the biosolids into a revenue stream was identified. The renewable energy project captures the biogas that is produced from the biosolids digestion process, upgrades it into renewable natural gas which is then injected it into a natural gas pipeline for sale on the national market.

$300 Million Saved through Phased Stormwater and Sanitary Waste Collection Plan

The City's original sewer collection system was built 120 years ago and did not separate storm and wastewater. This lead to problems with large rain events were overloading the system. Rather than separating the entwined system, which would have cost the City $600 million, Bartlett & West came up with a three phase 15-year plan to that focuses on cleaning and repairing sewers to increase flows. The approach is half the price of separating the systems and allows the City to use funds to maintain the current infrastructure instead of replacing it.

Efficiencies Through Asset Management

Another collection project Bartlett & West has been working on for the City is capturing images of sewer lines using close-caption TV (CCTV) and incorporating them into a centralized geographic information system (GIS) database. Using algorithms the City can now prioritize where they need to spend money on repairs.

Read the full article published by *TK Business Magazine*.