

Project Overview

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Background

Small wastewater treatment plants are responsible for the management and processing of residential, commercial, and industrial waste for smaller communities across Nebraska. Wastewater plants are major energy consumers for these small communities. These communities are committed to ensuring the highest possible levels of public health, economic growth, environmental quality, and fiscal responsibility. Therefore, this report should serve as a guide to them for the active pursuit of opportunities to reduce their environmental impact and save money while still meeting State and Federal regulations.

Project Description

The Nebraska Department of Environmental Quality chose two treatment plants for to be analyzed. Plant visits provided insight to where the facilities could become more environmentally aware and save on energy costs. After the plant visit, research was completed and recommendations were provided to each utility.

Benefits and Results

Implementing pollution prevention opportunities has the direct benefits of significantly reducing energy consumption and related costs. With these direct benefits also come intangible benefits of reducing greenhouse gas emissions and providing a great marketing tool to improve the public image of the municipality. The table below summarizes potential benefits for each municipality if the recommendations are implemented.

Table 1. Summary of Potential Benefits

Site	Annual Energy Savings (kWh/year)	Annual Cost Savings	Annual Greenhouse Gas Reduction (CO ₂ equivalents)
Scribner WWTP	101,400	\$10,400	96.5 metric tons
Snyder WWTP	190,300	\$12,790	181.6 metric tons