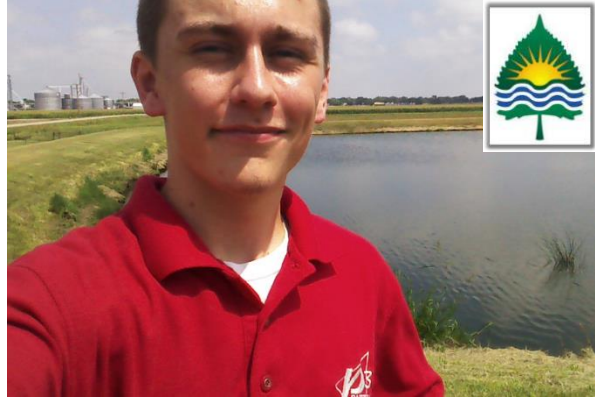


Project Overview:

Intern: Matt Thompson

Major: Chemical Engineering

School: University of Nebraska -Lincoln



Company Background

The Nebraska Department of Environmental Quality (NDEQ) is a governmental agency with a mission to protect the quality of Nebraska’s environment including our air, land, and water resources. The NDEQ enforces regulations and provides technical assistance for businesses to help comply with regulations.

Project Description

The NDEQ and the University of Nebraska –Lincoln are working together to help reduce energy use at wastewater treatment plants in Nebraska as well as help provide an asset management plan for a sustained future. The facilities in the towns of Cambridge and Bartley underwent an energy assessment and provided recommendations in this report.

Pollution Prevention Benefits

Pollution prevention can be realized through direct reduction of energy use at the source. This reduction in energy use directly relates to a reduction in carbon emissions. Reducing the energy use at these facilities benefits them by reducing operating costs and improving their public image. A summary presenting the benefits associated with implementation of recommendations provided in this report are shown below in table 1.1.

Table 1.1: Summary of Recommendation Benefits by Site			
Site	Annual Energy Savings	Annual Cost Savings	Annual Greenhouse Gas Reduction
Cambridge WWTF	157,000 kWh/yr	\$12,200/yr	106 MT CO ₂ e
Bartley WWTF	19,000 kWh/yr	\$1,400/yr	13 MT CO ₂ e
Total	176,000 kWh/yr	\$13,600/yr	119 MT CO ₂ e