

Project Overview

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Major: Environmental Engineering

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Project Description

The 2012 summer project included one energy efficiency/lighting system assessment for the Battle Creek Wastewater Treatment Plant (WWTP), and compiling the report for the class reassessment project for Lincoln Public Schools Transportation Services.

The reassessment project at Lincoln Public Schools Transportation Services was conducted as part of the class training to determine which recommendations from the Waste Assessment Report of 2008 were implemented and what the benefits were for the facility. Findings by each of the seven interns were compiled into one report which was submitted to the client. In addition, new technical assistance was provided in several areas. Michael Florek, the graduate assistant for the class compiled the potential results of the new technical assistance, summarized below.

An energy efficiency/lighting system assessment was completed for the Battle Creek WWTP, focused on reducing electricity consumption through source reduction, replacement of materials, or remodeling the system. Cost savings and CO₂ emission reductions were quantified and included in the report to the client.

Results

P2 opportunities identified had the potential to save money, reduce energy consumption, reduce greenhouse gases emission and improve public image. Table 1 below summarizes the potential and actual results from work completed.

Table 1. Summary of Potential and Actual Pollution Prevention Benefits

Project	Cost savings \$/yr	Electricity Savings kWh/yr	Hazardous waste reduction lbs/yr	Hazardous materials reduction/yr	Solid waste reduction lbs/yr	CO₂ emission reduction MTCO₂e/yr
LPS reassessment-actual results	1,840	14,900	50	460 lbs antifreeze	200	17.3
LPS new assistance-potential results	121,000	303,550		89,300 gal diesel	300	360
WWTP energy assessment-potential results	400	5,200				4.9