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Nicholas H. Feller

Melissa Dorton

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Creek and Lake Water Analysis of the Little Calumet East Branch Watershed

Author: Nicholas H. Feller and Melissa Dorton

Affiliation: Civil Engineering

The overall goal of this project is to collect and analyze baseline water quality data in the Little Calumet East Branch (LCEB) watershed. This watershed spans portions of Porter and LaPorte counties in northwest Indiana and drains into Lake Michigan. The LCEB currently has impaired water quality. The Indiana Department of Environmental Management (IDEM) has awarded Save the Dunes Conservancy Foundation a two year grant to develop and implement a Watershed Management Plan to improve water quality. During the summer of 2012, the following water quality parameters were collected weekly from 15 sites spread throughout the watershed: 1) pH, 2) temperature, 3) conductivity, 4) dissolved oxygen, 5) flow, 6) E. coli, 7) ammonia, 8) nitrate, 9) phosphorus, and 10) total suspended solids. Pollutant loadings and flow duration curves will be calculated for each pollutant at each site based on the raw water quality data. These results will be used to determine possible pollutant sources and to identify the critical and priority areas within the watershed where restoration resources will have the maximum impact.

Information about the Author:

Nicholas Feller, a junior civil engineering student at Valparaiso University, got involved with this project with the hope that he would gain knowledge in environmental engineering and further expand his views of civil engineering. Nick is uncertain of his future plans as a civil engineer.

Melissa Dorton, a senior geology major at Indiana Northwest University took on this project in preparation of pursuing a career in environmental studies.

Faculty Sponsor: Thomas Goyne

Student Contact: nicholas.feller@valpo.edu