

ABSTRACT

CREATIVE PROJECT: A Study to Mitigate Flooding Using Low Impact Development

Methodologies in Cool Creek Watershed, Indiana

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The rapid urbanization in the upper watershed of Cool Creek, located north of Indianapolis, brought forth the potential for increases in downstream flooding to residential and commercial areas, and water quality degradation. Significant effects to the residents and the environment include backyard flooding, stream-bank erosions, sedimentation, bacteria, and loss of ecological diversity. These issues can be resolved by a potential and effective way known as Low Impact Development (LID).

The primary goal of this project is to, at different scales, fully demonstrate the use of LID strategies to reduce the potential for flooding in the Cool Creek Watershed. The secondary goals are to improve the overall water quality, and to prevent measurable harm to streams, lakes, wetlands, and other natural aquatic systems from commercial, residential, and industrial developments. This project can serve as a model for other mid-western cities facing similar flooding and related problems.