

## Project Goal

Following are the determined goals and objectives for the project:

- Developing an open source user friendly framework and desktop tool for locating and designing swales.
- Augmenting web-based/mobile platform for multiple types of green infrastructure.

Table 1. Barriers to green infrastructure implementation and solution through the GIS enabled tool

Barrier	Solution
Misconception of -	Quantifiable performance, cost estimate and design results provided with results
<ul style="list-style-type: none"> <li>Unknown performance</li> <li>higher cost</li> <li>maintenance</li> </ul>	
Perception of -	Relevant regulations comprehended tool
<ul style="list-style-type: none"> <li>resistance within the regulatory community</li> <li>conflict with principles of smart growth</li> </ul>	Smart growth principles incorporated into tool
Conflicting codes and ordinances	Codes and ordinances incorporated into tool
Lack of governments staff capacity and resources	Ease of effort and significant time savings

## Results and Developments

### Desktop tool

## Summary of Anticipated Outcomes

- The project intends to engage and educate the next generation of engineers on the sustainable practices of green infrastructure.
- The tool will advance the economic competitiveness of smaller municipalities by facilitating rapid and informed decision making on green infrastructure projects.
- It will protect and preserve the environment by helping planners incorporate green infrastructure to minimize stormwater runoff and pollution.
- Ultimately, the tool will foster the development of enterprises rooted in sustainability.
- The proposed project will incorporate environmental, social, and economic sustainability principles through research activities and community outreach.

## Supporting People, Planet & Prosperity

The proposed project will address people, prosperity, and the planet through research activities and community outreach.

Source: Web

Source: Web

## Web/ Mobile app

Web tool link: <http://green.caps.ua.edu/>

Rational method coefficient,  $C$

Rainfall intensity,  $i$

Area,  $A$

Trapezoidal Bioswale Plan - Profile: Date: 2/20/2018, Drawing Number: 1, Page Number: 1, Scale: 1" = 1'

## Future Work

Source: Web

Source: Web

Source: <http://lidarnews.com/>

Source: <https://new.devon.gov.uk/>

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