

Team 3 - Green StormWater

App Idea

The app will help educate the general public on the importance of Green Stormwater infrastructure in Southeast Michigan. There will be an information section containing general information about GSI as well as a map displaying the location of GSI in SE Michigan. Users will be able to add additional GSI locations.

App Users

- High school students
 - Teenagers, some experience with technology.
 - Take and upload photos of green areas on the map, including information about the area.
 - View other green areas on the map.
 - Become more well-informed about Green Stormwater Infrastructure.
- High School Teachers
 - The teachers who will be using this app with their students
 - Will teach students how to use the app and about GSI
 - Take and upload photos of green areas on the map, including information about the area.
 - Adult to Senior
- General Public
 - Any age, any technology experience level.
 - View green areas on the map.
 - Become more well-informed about Green Stormwater Infrastructure.
- Scientist (Jessica Alger)
 - Adult age, moderate technology experience level.
 - Add and remove green areas from the map.
 - Acts as a moderator for GSI submissions

App Workflow

A typical user will browse through the app, on their phone, to learn about GSI. They can visit the map to learn about GSI at specific locations where they will also be able to upload information. A student or teacher will have a login to the site with common credentials and will be able to submit new locations of GSI. The Scientist, Jessica, will have a custom login which will allow her to moderate the submissions, particularly removing submissions as necessary.

App Data Type

- Login credentials
 - Username and password
- Information about individual infrastructure.
 - Type of infrastructure
 - (Type or description?)
 - Date installed
 - GPS coordinates (location on map) of the infrastructure.
 - Photo(s)
 - Size of Infrastructure
 - (What sort of inputs?)
 - Other unstructured information
- Uploader information
 - School
 - Date uploaded

App Views

- Home Page
 - Information about GSI, including photos
- Map Page
 - Interactive map of GSI
- Submission Page
 - Submit new GSI locations
 - Only viewable when signed in
- Moderation Page
 - List of all GSI
 - Only viewable with a moderator account

Implementation Challenges

Due to the outdoorsy nature of this application, Jessica proposed that it be mobile-centric, as this form factor is the most probable use case for students and teachers. Desktop browsers are also planned to be supported, but will likely not be as commonly used, so we will focus on mobile views. Getting the account system working will be challenging, especially with the consequences of having *one* account for all submissions. Another challenge will likely be the map page as a whole, ensuring that not only the locations are displayed well, but also the interactive information for each location.