Rising Waters: Leveraging HFOSS to Map Resources
Kyle Drewes and Prof. Mark Gondree
Computer Science Department, Sonoma State University

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Objectives

Continue development of the resource mapping tool begun in Year 1 of the Rising Waters collaborative.

- Compile list of "required" and "nice to have" features for the service from stakeholders
- Investigate various QGIS and other services for the ability to support the required features
- Determine short-term and long-term options for the service
- Characterize uses for the service via discussions with stakeholders.

Prior Work: Year 1 Rising Waters

Team 1 previously developed a QGIS-based solution

- Color-coded markers for resources
- Static website published via QGIS plugin
- Limited options for collaboration or access controls

Sample map of public restrooms, drinking fountains, and showers.

2021 Rising Waters Mapping Project

qgis2web - Leaflet - QGIS | © OpenStreetMap contributors, CC-BY-SA

Background: What is HFOSS?

Humanitarian Free Open Source Software.

Several HFOSS projects exist for mapping and crowd-sourcing data and may be applicable to this project.
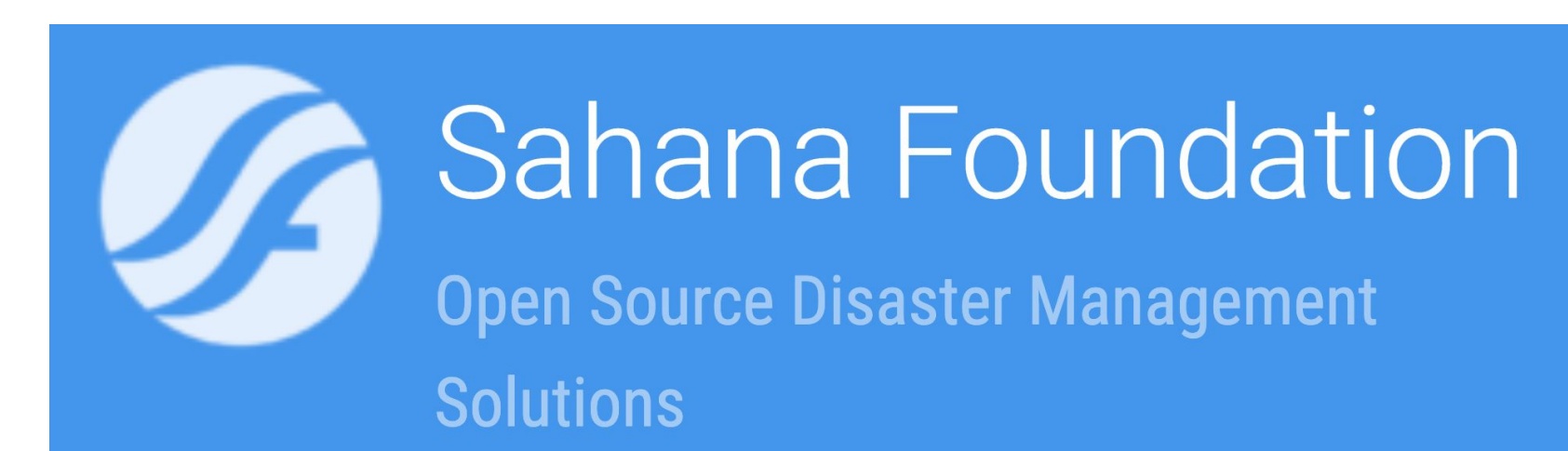
Methodology

- Generate list of requirements
- Survey relevant HFOSS
- Select the best fit almost-solution
- Prefer active communities that support new development
  - So any missing features can be implemented (since it is open source software)

Target Capabilities

- map pictures / text
- responsive web design (mobile-friendly)
- multiple users can enter data onto website
- data can be entered via mobile devices in the field
- customizable forms for data collection
- access controls to restrict access to some data

Mini-Survey of Potential HFOSS

Survey three candidate systems supporting crowd-sourced data collection with ability to map data

Sahana Foundation — Open Source Disaster Management Solutions

UWAZI

Ushahidi

Sahana / EDEN
sahanafoundation.org/eden

- information management system for disaster and humanitarian aid management

Uwazi
uwazi.io

- capture, organise and make sense of a set of facts, observations, testimonies, research, documents and more
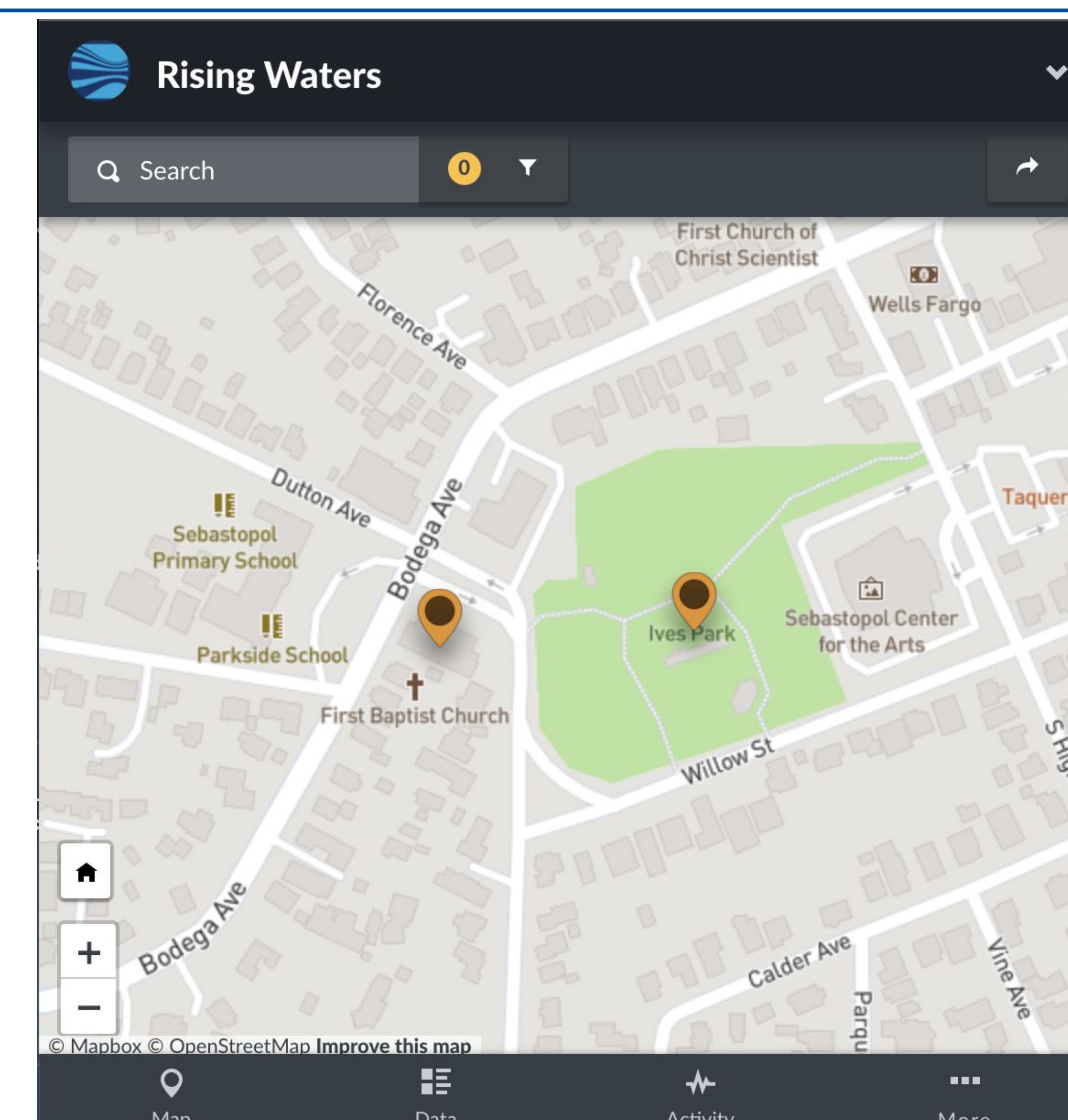- geared toward monitoring human rights violations

Ushahidi
www.ushahidi.com

- an intuitive and accessible crowdsourcing and mapping tool
- a variety of deployments among a diverse set of crisis and monitoring stakeholders

Recommendation

We recommended Ushahidi as a platform that would best serve the project goals

Supports:

- public and private collections
- custom forms for data entry
- hosted solutions
- options for content management and review

Ushahidi

Rising Waters — Search

© Mapbox © OpenStreetMap Improve this map

Map   Data   Activity   More

Project Status

- Compiled list of "required" and "nice to have" features from stakeholders
- Characterized uses for the service via discussions with stakeholders.
- Generated comparison of HFOSS solutions, and selected one
- Determined short-term and long-term options for the service
- In the process of standing up an SSU-hosted instance of Ushahidi for demonstration