

Physical Environment

Users are volunteer citizen scientists and staff of the Blue Thumb Oklahoma organization who monitor wadeable streams to collect field data for Blue Thumb. They will enter some data in the field and run some tests at home for later data entry, so the app will need to be accessible in both places.

Conditions can be wet or dry, with streams less than two meters in depth. Data is collected in all seasons, with bacteria data collected during the summer only.

Users come from a wide array of backgrounds, technical ability, and ages. They are brought together by a shared love of the streams of Oklahoma, and a drive to maintain the water quality of the water resources of their local area, or even the whole state.

Some resources may need to be available offline, since coverage in the state is not consistent, and users may be in wilderness areas.

App Environment

The app will be low maintenance and exist in the state it is completed in for an undetermined length of time. The app will function only online, with possible offline functionality to be added later, and be hosted by Michigan Technological University.

Blue Thumb Volunteers will use the app to record field tests, take the app home, reconnect to the internet, and submit their data. The app will need to be able to pass data to Blue Thumb's Access database where it will be hosted with other data collected by the Oklahoma Conservation Commission.