Most stand-alone homes in India use a labor-intensive, manual process to manage their daily water needs. This process lacks critical water tank level information, which can result in overflows and lack of water when it’s needed.

Pump It Up is an Android app that gives users complete control over their water systems using sensors that detect the water level in various water tanks, a Wi-Fi connected pump controller and real-time government water supply information.

**PROBLEM**

How can we help residents living in stand-alone homes in India manage their water systems more efficiently?

**SOLUTION**

Through our 5 interviews & contextual inquiries, we learned the process & associated problems of managing water in Indian homes.

Through journey maps, sketching, and storyboarding, we discovered that an Android app is the most effective solution to the user problems.

We designed an Android app that addressed the top user needs of finding tank level information, filling tanks remotely & getting water supply information.

Informed by our 5 usability studies, we improved the timer & level interaction & added sump tank information in the high-fidelity prototype.

**Alerts & Updates**

**User Need:** People wanted to be notified of the overall water situation or water shortages in their region.

**Feature:** This section provides alerts & other water related news.

**Overhead Tank Info**

**User Need:** People wanted to know if there is enough water to use at any given point in time.

**Feature:** This visualization shows how much water the tank currently has, in a representation they’re familiar with.

**Fill Tank Remotely**

**User Need:** People had to go to the pump switch physically to turn the pump on/off.

**Feature:** The app allows the tank to be filled remotely, by time or by tank level.

**Sump Tank Info**

**User Need:** Before filling the overhead tanks, people want to know if there is sufficient water in the sump tank.

**Feature:** This section informs the water level in the underground sump tank.

**Water Supply Schedule**

**User Need:** Government water supply schedule varies depending on the region and season. People found it hard to keep track of the schedules.

**Feature:** This section tells when the next government water supply is.

**User Need:**

- People wanted to know if there is enough water to use at any given point in time.
- People wanted to be notified of the overall water situation or water shortages in their region.
- People had to go to the pump switch physically to turn the pump on/off.
- People wanted to know if there is sufficient water in the sump tank.
- Government water supply schedule varies depending on the region and season. People found it hard to keep track of the schedules.

**Feature:**

- This visualization shows how much water the tank currently has, in a representation they’re familiar with.
- The app allows the tank to be filled remotely, by time or by tank level.
- This section informs the water level in the underground sump tank.
- This section tells when the next government water supply is.