

## WaterWaze - Ideas - (Clean Water and Sanitation)

Who	What	Wow (where or when)
People without clean water	identify/track contaminated water	in impoverished areas
Data Analysts	create/find clean water	in near realtime
People experiencing homelessness	spread awareness	over the course of ____ (a week, a month, a year, etc)
Home owners	measure water consumption	based on ____ (geological, environmental, water quality, etc.) data
Farmers	prevent contamination of water	in a designated area (country, state, etc.)
Hydro homies	increase efficiency of recycling used water	
Department of agriculture	compare quality of water resources	
Government officials	improve sanitation services available	
Limited user base; only governments/companies that have the ability to implement change		
City officials	Identify lack of sewage infrastructure	in population dense or areas lacking sewage infrastructure
Water management	identify leaks before they happen	in real time
Educators	teach farmers techniques to prevent agricultural runoff	using interactive or gamification platforms
People who cannot easily access water sources	identify safe water sources along with rate and share them	on a mobile platform
Refugees		
Thirsty people		

## Issues

- need to make it easier to find clean water
- need to spread awareness for global warming
- make it easier to create clean water
- make it easier to identify if water is clean or any harmful chemicals in the water
- make it easier to track and fix leaks in pipes and/or water towers
- make it easier to protect water towers and other water sources
- make dams more efficient and effective
- make it easier to track water contamination
- create better irrigation methods
- use water more efficiently and waste it less
- need to drink more water and be healthy :)

- need to protect against severe rainstorms'
- need to prevent stagnant water, which is gross and has lots of buggies
- Somehow develop a device that adds particulates to the atmosphere that generates more clouds (increasing cloud cover) in certain areas to generate more rain
  - Would need significant amount of particulates because regular contrails actually increase global warming
  - <http://content.time.com/time/health/article/0,8599,1912448,00.html>
  - Low-level cloud cover cools the earth
- Create a visual indication for the impact of rising sea levels on a community's infrastructure, water sanitation, etc.

## Solutions

- Early warning system for decline in water quality
- Early warning system for droughts
  - Could take into account regional rainfall, temperatures, water consumption, etc.
- Tool that measures global warning/rising water levels
  - As a visual, show how long it would take until your house is underwater
- Waze but for water
  - Potentially use Google Maps API; be able to add water fixtures (e.g. water fountains)
  - Comment on quality of water; if at restaurant, whether or not it was provided
  - Could start with starting off using geolocation data for existing water features; moving water good, stagnant water bad
  - Self-reporting features
- App related to tracking water runoff
  - Maybe relate to what minerals, etc. are absorbed into the water
  - Add in information about permeable services around the runoff
- Detecting leaks in waterways (aqueducts, etc.)
- Tracking water contamination
  - Top down map view
- App for shaming people for using too much water
- Runoff tracker:
  - Take all geolocation data for sediment in a certain area (county, state; not too big) and analyze the data using some sort of service (machine learning? idk) and determine where the most contaminated water could be so that companies or something else could build there and reduce the risk of having bad water runoff

## Resources we need

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## End users

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## Big tasks

- Create backend
- Populate the map with water fountains/sources
- Create web app
- Create iOS app
- Create project proposal/presentation

## Final Idea - Water App: Water Waze

### Features

- **Users can submit water sources**
    - User can submit location, picture, ease of access, etc
    - Other users can verify if nearby submissions are valid
    - User's profile can have an overall trust rating
    - This solves the spam issue, high ratings = verified water source
    - Users have to be in range, let's say 1km radius
    - Verified places like Starbucks etc.
  - **Users can rate water sources**
  - **Users can get directions to water sources**
    - Different type of water sources such as fountains, showers, sinks
  - Users are incentive to submit/rate
    - Raffle, money, bottles, filters?
    - Badges, in app achievements
- Users can view in app education or our be lead to outside information on identifying clean water sources.

### Notes

- Distinction between water types: water fountains, streams, sinks, showers
  - Maybe have a list of options to choose from: Natural, Man-made, then narrow down within?

## Login Components

- Landing screen features
  - Logo on top

- log in button
  - sign up button or phone number button (if phone number is used to login the system would ask for a verification code to be entered and the user would proceed from there and log in with phone number)
  
- Account info screen
  - Email
  - Username
  - Password
  - if phone number route is chosen only ask for username
  
- Request location screen
  - Location enable button (track always, while in app, never)