

# Water Matters App Description

## App Idea

An app that teaches those with poor access to clean water how to conserve and harvest water. The app will be divided into two main sections, conservation and water harvesting. Each section will contain easy to understand information for the user. The water harvesting section will contain instructional videos and guides on water harvesting and a rainfall calculator that determines how much rainwater can be collected. The app will also be bilingual having both english and spanish versions. The goal is to develop an easy to use, easy to understand web app that just about anybody can utilize.

## Users

The main users of the app will be residents in colonias. This is mainly an older population, with less experience using technology. They will be using the app to learn about these water harvesting and conservation techniques.

The app will also be designed to be able to be used by people in other rural areas with poor access to clean water, or a limited water supply. The technological experience of these users is expected to be about the same.

## Major Workflows

- 1.1. Rainfall Calculator
  - 1.1.1. Choose language
  - 1.1.2. Navigate from homepage to Water harvesting section
  - 1.1.3. Navigate to Rainfall calculator screen
  - 1.1.4. Choose location or enter annual rainfall manually
  - 1.1.5. Enter Roof and carport dimensions
  - 1.1.6. Press calculate button
  - 1.1.7. Learn yearly gallons harvestable

- 1.2. Water Conservation Learning
  - 1.2.1. Choose language
  - 1.2.2. Navigate from homepage to water conservation page
  - 1.2.3. Read webpage to learn about water conservation
- 1.3. Water Harvesting Learning
  - 1.3.1. Choose language
  - 1.3.2. Navigate from homepage to Water Harvesting section
  - 1.3.3. Navigate to water harvesting knowledge webpage
  - 1.3.4. Read water harvesting webpage to learn about water harvesting
- 1.4. Watch water harvesting demo
  - 1.4.1. Choose language
  - 1.4.2. Navigate from homepage to Water Harvesting section
  - 1.4.3. Navigate to water harvesting knowledge webpage
  - 1.4.4. Watch embedded video on water harvesting
- 1.5. Download Rainwater harvesting guide
  - 1.5.1. Choose language
  - 1.5.2. Navigate from homepage to Water Harvesting section
  - 1.5.3. Navigate to water harvesting knowledge webpage
  - 1.5.4. Download water harvesting guides by clicking a download button.

## Views

- Rainfall Calculator
  - dropdowns
  - Textboxes
  - toolbar
- Water Conservation
  - Text
  - Images
  - toolbar
- Water Harvesting

- Text
- Images
- Videos
- PDF downloads
- toolbar
- Home Page
  - Link to water conservation
  - Link to water harvesting
  - toolbar
- Language Selection
  - English
  - Spanish

## App Usage

The app will mainly be used by residents of the four border states on the US and Mexican border i.e. Texas, New Mexico, Arizona, and California. The app will be used by native speakers of both Spanish and English with all documents available in both languages. The users of the app are assumed to be using more small mobile devices rather than computers.

## Data

- Images
- Text
- Youtube videos to embed in app
- PDF documents that can be downloaded

All of these data types will have two variations: an English one and a spanish one, for the users to choose from.

# Anticipated Challenges

## Usability Challenges

- If a user chooses the wrong language, they'd get locked in and would have to restart the application to change it
- Device age: a user with an older device may have trouble loading our content due to a device error
- Finding specific content with multiple pages in the scroll format

## Implementation Challenges

- Formatting the data for mobile devices
- Scrolling through content instead of content being in separate pages could cause formatting issues
- Videos have set dimensions that could interfere with content around