January 22, 2016-1st meeting with Ben Ruddell

- Regular meeting times?
  - Adhoc meeting times/irregular meeting times work best

- Website for android browser?
  - Doesn’t care. Websites are more durable than an app. Low-tech, durable website that is optimized for mobile device

- What is the core functionality of the app?
  - Reading water depth
  - Empower relatively untrained observer to use cellphone to observe and record water depth
  - Submission
  - Feedback
    - Show the data they submitted, graphed and visualized, and placed in context with others at same location

- Set bodies of water, or anybody going out anywhere?
  - Fixed known locations registered in the system
  - Database will have metadata with long/lat, serial number, timestamp, observation from different gauges

- 2 ways to enter data
  - 1. Manual reading. No instructions, simple interface to enter serial number and reading (probably cm) (minimum/initial requirement)
    - Will collect timestamp
      - Time selection, default to current
  - Preferred/default way
    - Camera picture
    - Picture taken from known location, sign stating what is going on, picture of gauge
    - Picture into database
    - Website extracts image and records data
    - Not feasible?
      - They already have algorithm in place
      - They will provide the algorithm
- Observations data model exists
- (odm) in place
  - Server exists
- Putting frontend on existing backend

[ ] Any user? Volunteers have accounts?
- Login not required for us, will be needed eventually
- Platform will allow authentication, just not implemented

[ ] Every button a user has to push decreases the chance they will finish project
- Needs to be streamlined/simple
- IDIOT PROOF AND EASY
- EXTREME SIMPLICITY

[ ] Type in url/search, punch in reading/picture, get visualization back
- 3 steps!

[ ] Can assume:
- No instructions needed
- Give the page a title (think uber)
- 10 words or less that explains it
- No explanation needed
  - Assume they were trained/read the signs by the gauges

[ ] Choose photo/data manually

[ ] 1 QA step to check what was submitted
- Basic checks
- Image.....???
- Shrink image/quality
- Photo in correct format
- Give warning on response when enter manually if they decide to enter anything other than default maybe have red text appear automatically-are you sure this is when you took your reading?
- Limit choices for date time
- Time zones!!!!
- Timezone will be meta-data parameter
- Standard time, not daylight timezone

- Domain exists?
  - He can do that

- Setup prototype site and then transfer later

- Backend
  - We should read about
  - Hydrodesktop server
    - CUAHSI
    - Install and run for us sql based relational database observation data model designed to handle water related db info
    - (optional) expose db to wsdl and soap and xml to connect to web database
    - Client and webclient
      - Access any server publishing in these formats
      - Once setup, anyone in world who uses water can access the data and view on map

- BYU
  - Dan Ames
    - Water for the world
      - Like what we are doing
      - Publishes the data
    - Maybe push our data to their db?
    - Ben talked to Dan, willing to help
    - Equally valid to standup their own server

- Our environment?
  - No existing db/server???: TRUE

- Expect last thing to do, if we able to standup server
  - Try to implement existing image recognition

- *Not mandatory*
  - Possibility of texting/emailing a manual reading instead of accessing website
Test data within the next month
  o He's actually setting gauges/equipment up right now