

Village Source to Environment Detailed Task List

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1 Design a distributed storage system for a village water supply

1.1 Design of distribution system

- Review last semester's projects [Complete by 2/14; Diana]
- Compile best strategies from previous projects into one comprehensive design [Complete by 2/28; Rachel]
- Optimize design for cost efficiency, equity, and convenience [Complete by 3/07; Diana]
- Revise for sink implementation as design progresses [Ongoing; Rachel]

1.2 Design household safe water infrastructure

Sink Design: flow restriction element, float valve, storage tank, tap.

- Literature review [Complete by 2/14; Rachel]
- Sizing for individual house/compound [Complete by 3/29; Diana]
- Optimize for cost/equity/sanitation/convenience [Ongoing; Rachel]

1.3 Design photovoltaic and pump system

2 Evaluate options for handling human waste

2.1 Greywater

- Evaluate current infrastructure if information is available [Complete by 2/14; Nick]
- Literature review on greywater capture and treatment systems [Complete by 2/14; Sarah]

- Design system to capture and treat greywater for use in irrigation or flushing toilets. If we design a successful sink, this could capture greywater and carry it to the treatment system. We should look into plants and other methods capable of removing pathogens for reuse on edible plants. We must also consider how treated greywater will be transferred to current/revised toilets. [Complete by 3/29; Nick]
- Design method of implementing system and educating residents [Complete by 4/18; Sarah]
- Integrate distribution system [ongoing; Sarah]

2.2 Blackwater

We will focus on blackwater treatment if we complete the greywater and distribution systems in a timely manner.

- Redesign toilet: use greywater or no water

3 Individual roles

3.1 Team Coordinator: Diana

- Responsible for facilitating Team meetings and keeping track of progress over the course of the semester to ensure that goals are completed in a timely manner. Point person for communication between the team and advisors, as well as between the team and the AguaClara leadership team.

3.2 Literature Coordinator: Rachel

- Responsible for compiling all relevant information gathered from literature sources and ensuring all material is properly cited.

3.3 Report Proofreader: Sarah

- Responsible for checking reports for proper spelling and grammar.

3.4 Team Glue: Nick

- Responsible for ensuring team unity and productivity.