

Water Treatment Technology Selection Guide

Water Treatment Technology Selection Guide (WTTSG)

The Plant Cost Calculator (PCC) and Water Treatment Technology Selection Guide (WTTSG) subteams have been merged into one team: the WTTSG team. The team's goal is to deploy a plant cost calculator, which provides estimates of plant costs to parties interested in AguaClara technology, and an interactive technology selection tool that empowers the same parties to make smart decisions about what water treatment technologies can best serve their needs. Both endeavors of the WTTSG team must take into consideration the realities of resource and skill constraints of communities, and they should follow sustainable engineering practices. For Spring 2015, our goals are to finish the design of the site, to ensure that it functions as expected, and that it is highly usable by people in different countries, speaking a variety of languages. We plan to deploy the tool to the website by the end of the semester. Repository of developing code can be found [here](#).

The Fall 2015 team focused on building the framework for the results page logic and populating recommendations with valid data (which had to be collected). In implementation of the tool, the team focused on scalability in the face of changing constraints and treatment options, and worked to improve user experience through features such as the ability to save the link to a results page in progress. Significant strides were also made in data collection, with the team making the important decision to shift focus to AguaClara technologies exclusively; this was necessitated by the paucity of reliable/available information describing commercial treatment options. The Spring 2015 WTTSG team introduced a variety of interactive features, such as automatic translation and administrator functionality, configuring a MySQL DB and deploying the site live to the AguaClara server. The Fall 2014 WTTSG team redesigned the plant cost and technology selection tools to be redesigned for better user experience, and to be more aesthetically engaging. The Spring 2014 WTTSG teams developed basic working versions of the PCC and WTTSG tools. These websites have little interactivity and UI/UX design, but can make appropriate calculations. They are currently hosted on a localhost. The Fall 2011 team developed a [Water Treatment Technology Selection Guide](#) in Microsoft Excel, using the Visual Basic for Applications (VBA) language. Within the WTTSG, there are five hydraulic-driven unit treatment processes featured, resulting in 11 unique combinations of treatment under consideration. In addition to providing an optimized result for the user, features within the WTTSG include a section on technology write-ups, and a list of questions to allow a layperson to pose to technology vendors.

To enhance the functionality of the WTTSG, the following points can be considered:

1. To continue to update the removal efficiency figures of the unit treatment processes featured in the WTTSG - for example, the performance data for the SRSF should be updated in the WTTSG after operations have stabilized.
2. To develop a database of regulatory guidelines/standards pertaining to drinking water within the WTTSG.
3. To consider the inclusion of other combinations of unit treatment processes within the WTTSG.
4. To explore synergies between the use of the WTTSG and the AguaClara Program. One approach could be to develop a web-based version of the WTTSG, directly linking prospective communities to the AguaClara Program if there is a match in solution and needs.

Members

[Sarah Sinclair](#)

[Anthony Arce](#)

Email Team

Documents

	Challenges	Tasks	Symposium	Final Presentation
W T T S G F a l l -15		? Unknown Attachment		? Unknown At
W T T S G S p r i n g '15		? Unknown Attachment	? Unknown Attachment	

W T T S G F a l '14		? Unknown Attachment		? Unknown At
C o s t C a l c u l a t o r S p r i n g '14	? Unknown Attachment	? Unknown Attachment		
W T T S G S p r i n g '14	? Unknown Attachment	? Unknown Attachment		
W T T S G F a l ' 11	? Unknown Attachment	? Unknown Attachment		