

Guide to the AguaClara Wiki

August 28, 2012

Your Team's Wiki Page

Each individual subteam has their own wiki page. This is where you will find reports and presentations given by the team's previous members. This is also where you will be adding your team's reports and presentations for this semester so that future teams will know what your team accomplished. Below is a good example of what your wiki page should look like.

Foam Filtration

Numerous techniques of water filtration are in use today, most of which involve the use of sand as the porous media. A preliminary literature review revealed a dearth of information on foam filtration. Our team has decided to focus on investigating the actual filtering capacity of a polyurethane foam material as opposed to the traditional method of sand filtration. With proper implementation, a foam filter could reduce the amount of water that is wasted during the backwash cycle of a traditional sand filter. A foam filter requires less surface area, and could potentially be less expensive to build than a traditional sand filter. However, a foam filtration unit will also require a tight seal with all of the edges of the tank, in order to avoid preferential flow paths which will result in unfiltered water. In addition, a foam filter will likely require manual maintenance by the plant operator.

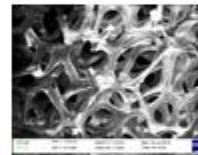


Foam filtration has been ruled out for an AguaClara plant because the foam would be too difficult for an operator to clean. However, previous research has proven that foam is an effective method of filtration, therefore this team decided to focus on designing a point-of-use foam filtration unit. However, due to chemical dosing and usability concerns, the point-of-use application was ruled out as a possibility for foam filtration. The team is now focusing on the design of an emergency filtration system that can be transported on the back of a pickup truck. Research will be done to optimize the design such that it is as efficient as possible and provides the desired standard of 1 NTU effluent water turbidity.

Note: Turbidity is defined as the cloudiness of a fluid caused by suspended particles. Higher turbidities correlate to more opaque fluids.

Current & Future Research

Our team is currently designing an emergency filtration unit to be built and tested. The design consists of a roughing filter that utilizes 30 ppi foam and a finishing filter with 90 ppi foam. The filter unit will be built using PVC pipes, of which the diameter can be selected based on the volume of clean water needed. Additionally, the AguaClara chemical doser will be used. A prototype is being built and we will run a series of experiments testing the effectiveness of the unit itself.



Additionally, experiments with the foam column will continue. Fall 2011 experimental trials focused on testing 30 ppi foam as a roughing filter. Other research areas will be explored as well. This will include the effectiveness of an aluminum hydroxide wash to decrease the ripening time of the foam, the effects of natural organic matter on the foam material and the most efficient way to clean the foam material. [Read more.](#)

*PPI stands for pores per inch, which is a linear measurement of foam pore size. A larger pore size number (i.e. 60 ppi) corresponds to a smaller pore size.

Team Members

- [Leah Meyerholtz](#)
- [Sarah Levine](#)
- [Michelle Gostic](#)

Documents

	Challenges	Tasks	Teach-in	Presentation	Final Report
Summer '12					
Spring '12					
Fall '11					
Spring '11					

Past Research

- [Spring 2011](#)
- [Fall 2010](#)
- [Summer 2010](#)
- [Spring 2010](#)
- [Reflection Reports](#)
- [General Filtration Page](#)

Last edited by [Sarah Marie Levine](#) on Aug 02, 2012 12:54.

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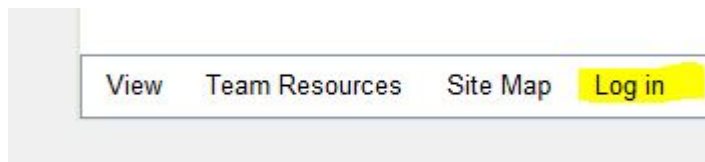
Figure 1: Subteam Wiki Page

Beginning of the Semester Editing

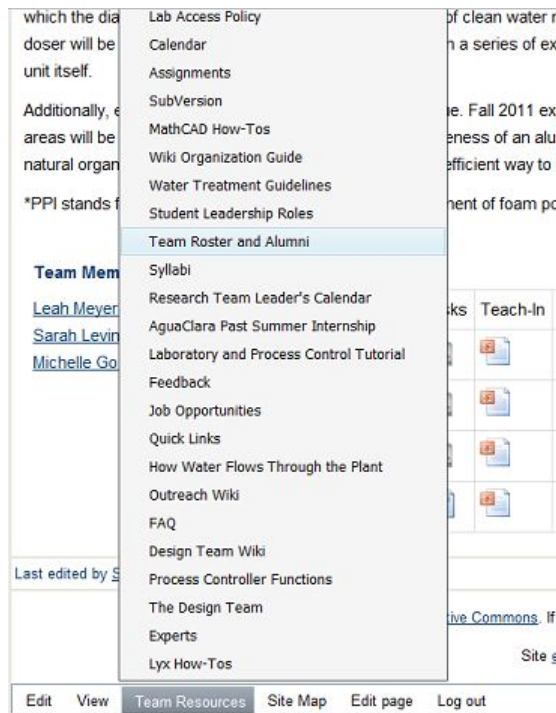
Individual Wiki Page

Everyone has their own individual wiki page. Your individual wiki page will include each semester that you have been in AguaClara and what you have accomplished that semester. Here are the steps you need to take to edit your individual wiki page

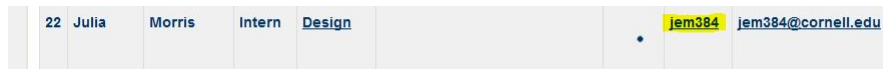
- Log on. Do this by clicking the “Log In” button at the bottom of the screen and signing in with your Cornell netid and password



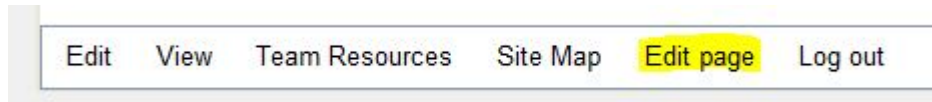
- Hover your mouse over “Team Resources” and then click on “Team Roster and Alumni”



- Here you should find the names of all the current team members. Find your Name and click on your netid



- Now you are at your individual wiki page. To edit the page click on “Edit page” at the bottom of the screen



- Make sure you are under the “Wiki Markup” tab. Here is how you should format your page
 - h1. YOUR FULL NAME’s Individual Contribution Page (This is the title of your page)
 - h3. CURRENT SEMESTER Contributions
 - * Under this heading add what you and your team plan on accomplishing this semester. This will be updated at the end of the semester to include your actual accomplishments. Below is an example of what the wiki markup and the actual page should look like.
- Once you are done editing, click “Save”

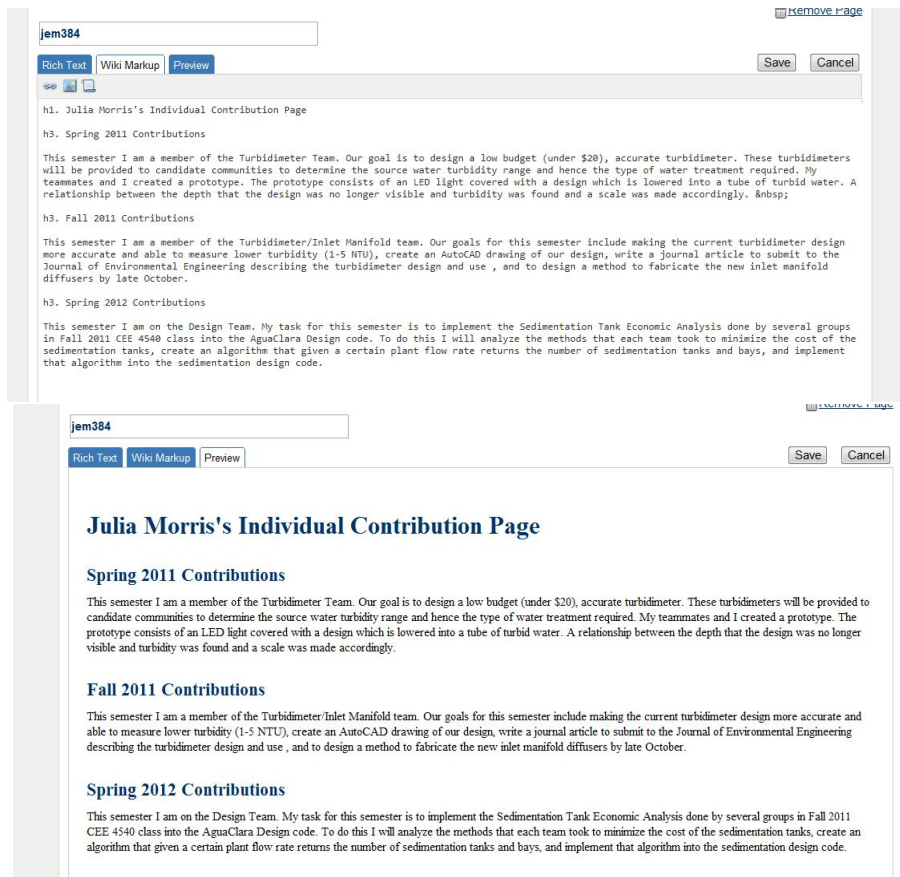


Figure 2: Wiki Markup Example (top) Individual Page Example (bottom)

Updating Your Team's Wiki Page

To find your team's wiki page you can search your team name or from the home page click on Research and then your team's wiki page should be under Active Research Teams.

At the beginning of the semester your team should update your team's description to include what you plan on accomplishing during the semester. To edit this Log In and click Edit page. You can then add/edit what your description in Wiki Markup. Make sure you Preview the page to make sure it looks the way you would like it to before saving.

Another update that will need to be made is the Current Members. Each page has a section that shows who the current members of the team are, and if you were to click on their name it will take you to their individual wiki page. In the Wiki Markup you should find a heading called Current Members. Below is what the Wiki Markup should look like in order for the name to show up

correctly

- h5. Current Members
- [Name | netid]
 - Add one of these for each member of the team.

Below is an example of what the Current Members wiki markup and wiki page section should look like

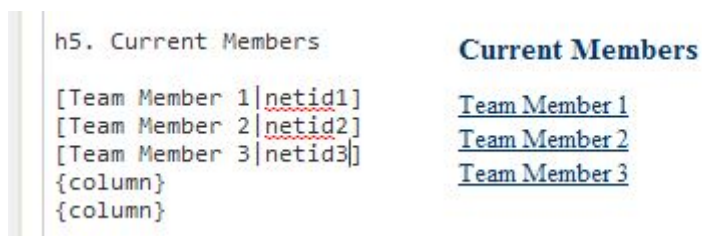


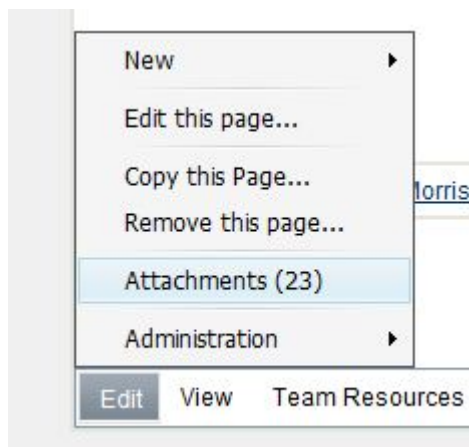
Figure 3: Current members wiki markup (left) and wiki page (right) example

During the Semester Editing

During the semester you will need to add a couple documents to your wiki's Documents table. Below is a guide on how to do just that.

Adding Documents to Documents table

- 1) Log in to the wiki with your Cornell netid and password.
- 2) Hover your mouse over Edit and then click on Attachments



- 3) Attach document that you would like to add to your team's documents table
- 4) Navigate back to your team's page and click "Edit Page"
- 5) Under "h5.Documents" you will see the wiki markup that makes up your table. You should see something similar to this

		Challenges		Tasks		Teach-In		Presentation		Final Report	
		Current Semester									

Each vertical line represents a section of the table. For example, if you wanted to add your final report to the table, it should be added between the last two lines. The next steps will explain how to make sure that your document is represented as an icon

- 6) Add your document as an icon (pdf, powerpoint, word, or Zip File) to your document in the corresponding section of the table. The table below will tell you what wiki markup you should add to the table so that the correct icon appears in the table

Type of Document	Wiki Markup
PDF	<code>[!Research^pdf_icon.jpg height=25! ^FILE NAME.pdf]</code>
PowerPoint	<code>[!Research^ppt_icon.jpg height=25! ^FILE NAME.pptx]</code>
Zip File	<code>[!Research^WinZip_icon.png height=25! ^FILE NAME.zip]</code>
Word Doc	<code>[!Research^word_icon.jpeg height=25! ^FILE NAME.doc]</code>

- 7) Preview your wiki page and make sure that the correct icon is appearing in the correct place in the table. If so, click Save.

End of the Semester Editing

To make sure that your wiki page is complete at the end of the semester the following steps should be taken

- Make sure that all your reports and presentations (Final Report, Final Presentations, Teach-In, Task List, etc.) are located in the table under the current semester with the correct icons
- Attach to your wiki page any Mathcad, AutoCAD, or any other documents that might be useful for future team members
- Update your team's description to include a brief description of what you accomplished during the semester and what will need to be accomplished in the future
- Update your individual wiki page to include what you accomplished during the semester