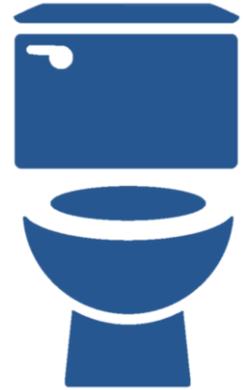

2016



Resolving sanitation issues in the developing world by educating people and engineering sustainable centralized solutions that keep waterways clean and communities healthy.



Winter Newsletter

Message from the Chair



As we roll into 2017, our committee Chairs are seeing the end of the third quarter in their positions. These incredible volunteers have quickly taken ownership of their roles. Many great new ideas and projects have been formed over the last few months. The group continues to grow and take on new challenges as we establish a stronger foundation for this young organization. We hope our revamped newsletters will arm you with the information and confidence to share and support our cause in the coming years.

I would especially like to applaud the recent efforts that our QA/QC and R&D committees are putting forth to create an organized process for future projects, discussed in the QA/QC section below. I believe this will help streamline projects in the data collection, design, and implementation phases. As with most processes, a more detailed and informative method reduces problem areas and promotes efficiency. Working with the local communities and using these project check lists provides a greater opportunity to move our projects through to completion. Thank you QA/QC and R&D for your efforts!

Treasurer Report

GWS' official 2017 balanced budget has been approved and is effective! All year-end tax letters were sent out to 2016 donors, and since we are now recognized as an individual corporation, the tax reporting process has begun with the IRS. As of 2017, the Treasurer will be utilizing QuickBooks in order to better maintain and track the budget, but is still in the process of entering the budget into the program. If you have or know someone who has experience using QuickBooks, please don't hesitate to contact us! We greatly appreciate the continued efforts to obtain donations and other sources of income as we work to meet our budget goals!



Fundraising

Mike Holland has been both a fantastic Student Design and Fundraising Chair this past year, and we thank him for his enthusiasm, dedication, and volunteerism. Now, Rich Hussey will be taking over



as Fundraising Chair, working on taking GWS's fundraising efforts from being focused on local, small donations, to larger corporate donations and grants. There are many opportunities in this committee including grant investigating and writing – we welcome any volunteers with these skills or any excited to take on the task! Fundraising is a key component of ensuring our proposed solutions can become a reality for communities in need. Please contact Rich Hussey at RHussey@lai-ltd.com.



Marketing & Social Media

The Marketing Committee has been busy penning articles and posts for CSWater, World Water, alumni magazines, local blogs in Costa Rica, and more! We hope to spread our message to as many people as possible, gaining support and spreading an understanding of why we do what we do. While many in the water industry understand the importance of sanitation, many in the general public do not. It is easy to take advantage of the access we are lucky to have in our country, but other communities are not so fortunate. This committee strives to foster understanding and passion for GWS' cause. If you are interested in the endeavor, we'd be happy to have you!



Other activities include strengthening the foundation of the GWS organization, creating pamphlets and graphics, and developing a marketing plan to grow GWS' future. GWS is also growing its presence on LinkedIn, Facebook, Instagram, and Twitter, but we could always use more help in staying active and sharing information appropriate for our target audiences. Contact the Chair now to be a part of our efforts!

Student Design

The GWS Student Design project for 2017 has kicked off with a challenging design in Dominical, Costa Rica. Dominical is a commercialized area consisting of restaurants, hotels, and shops. The challenges involved in this student design project consist of Dominical being a dense development with close proximity to protected areas, areas of future development, large water bodies, and steep mountains. These challenges have been outlined in the problem statement that was issued in the fall of 2016. It is the students' responsibility to analyze the best options for an efficient and cost-effective wastewater collection and treatment system. Each student group has been assigned GWS mentors who are available to respond to questions throughout the design process. The groups will



be presenting their final designs on April 10th at the annual CSWEA student design competition in Madison, WI. The winning team will work with GWS professionals to finalize design details and visit the project site in August.

If you are a student group, our next phone call to answer your questions will be **on Thursday, March 2nd at 12pm**. Call in to 641-552-9120, 305751.



The final deadline for entries this year is March 31st. For more information, or if you're interested in participating next year, find out more here: <http://www.cswea.org/SYP/Competition/>.

International Programs

This committee was created to serve as the connection between local project contacts and the GWS project team in the US. On January 6th, the Board discussed and approved working with Amy Work as the local representative for GWS, and will provide her \$200/mo. for the work that she has done and will continue to do for GWS. This is to help cover her expenses for attending meetings and to make sure she is able to stay where she is to continue to help GWS. Amy is a fantastic asset to GWS. She is well respected and known throughout Costa Rica's communities and is a strong supporter of our mission.

RQL (Costa Rican Engineering Firm) is requesting a partnership on projects from US firms. This would be for Water/Wastewater projects ranging from \$5 - \$15 Million. If your firm is interested, contact GWS! Currently no firms have come forward.

The committee is actively working to ensure all current projects are moving forward. Each is in a different stage, summarized below:

Piedras Blancas: A report for this community was written by the local consulting engineer RQL to the municipality of OSA. It provides project information in order to get approval to build the treatment plant on the proposed property. To date, there have been numerous meetings, but the approval is still pending. Amy is doing a great job communicating with the local contacts to move this forward.

Bahia Ballena: The team is working with the new manager for the local ASADA, as well as other organizations in Bahia, in order to determine the best available property to build the proposed treatment plant.

Dominical: Site surveys were completed and are the final piece for the student design teams to have the information required for their designs.



Other programs:

San Isidro Plant: We are working with AyA to provide the best solution for the issues at the San Isidro lagoon system, a wastewater treatment plant in Costa Rica's big city. We are proposing the addition of mechanical aeration and baffles to the existing lagoons in order to solve the treatment issues.

Work with ACEPESA: As a short term projects, our team is working with ACEPESA to help build biogardens for schools in Costa Rica. ACEPESA is a local organization that has been working in communities with localized treatment. A great example is the biogarden they completed at Escuela Verde. Until full collection and treatment systems are constructed in the communities, these biogardens will help the schools treat grey water in the meantime. Further, students and their families will gain knowledge on treating water.

QA/QC

The Quality Assurance/Quality Control committee is working on a project checklist for planning, designing, and constructing projects. The checklist will provide greater uniformity with regard to critical background information such as land ownership, zoning and other restrictions, before further conceptual design is started. We are working with Paige Peters, chair of the Research and Development committee, on this effort. Paige has extensive experience with Engineers Without Borders on project planning and implementation.

The committee is looking forward to helping the winning team of the Student Design competition further refine its design for a centralized treatment system in the Dominical province of Costa Rica. This activity should start in mid-April.



We are also assisting the San Isidro wastewater facility in Costa Rica by investigating ways to achieve more mixing and aeration in their large lagoon system. A good option is solar powered mixer/aerators, as the plant cannot take on much more power load and needs a low-maintenance solution. This choice could enhance the operation of the lagoon under the existing electrical service.

Research & Development

The Research and Development Committee is staying busy collaborating with other GWS committees and pulling from the insights and resources available in our professional network. R&D is working to develop a valuable technology library for students and professionals alike to pull from when tackling important infrastructure problems.

One way to facilitate this information flow will be with our upcoming webinar series launching in late 2017/early 2018. Keep an eye out for dates and times as we plan to launch a 6-month series!



The mission of the webinar is to build a bridge for professional engineers in both academia and industry here in the States to translate and apply their talents for development work abroad. Technical assistance with the webinar logistics would be a big help, as well as organization and speaker recruitment. If you'd like to help or be a speaker, please reach out to the R&D Chair Paige Peters at paige.peters2@gmail.com.

Closing Remarks

Our Chairs are continuing to do great things for the GWS community and the communities where we are working towards future treatment plants. While they still have a few months until the end of the committee year, they are looking for members to begin following in their footsteps. If you are interested in joining a committee, or even volunteering for a Chair or Vice Chair position, contact me (Amanda!) at chair@globalwaterstewardship.org.

Stay tuned through our social media pages (@H2OStewards) and **don't miss our monthly conference calls, scheduled for the first Friday of every month at 12 pm!** Call in to 224-501-3318, access 133-059-333.

We are thankful for the continuous support of our donors and volunteers. Check out our next newsletter for a February Costa Rica trip update!



Monthly call, open to all: first Friday each month, 12 pm, 224-501-3318, access 133-059-333

Make a donation at www.globalwaterstewardship.org

Primary contact: Chair@globalwaterstewardship.org

Follow us! @H2OStewards