

Community Engineering Corps (CECorps): Proposal to Become a Committee of the Pacific Northwest Section

History:

AWWA developed the Community Engineering Corps in 2015 as an alliance with Engineers Without Borders (EWB) and the American Society of Civil Engineers (ASCE). The goal was to apply the EWB model that has been helping communities with water, sanitation, and other issues in developing countries to communities in the United States.

Mission:

Bring water professionals together to advance local infrastructure solutions in underserved communities, while also providing an opportunity to mentor young professionals and students and grow PNWS-AWWA membership

Vision:

A Section in which underserved communities have access to the technical expertise required to ensure the infrastructure capacity to meet their needs and partnerships occur between student organizations and the PNWS-AWWA section.

Objective:

The goal is to bring together our section water professional expertise (our engineers, operators, water quality specialists, and utility managers) to help small communities in the PNW section who cannot afford to hire engineers/experts to solve their problems. As a committee, the goal is to align the right experts for the right projects, so that the community is getting the best expertise to help solve their problems. During the projects, the teams should partner with student and YPs to engage them in technical solutions and foster their growth.

Current Leadership:

Lynn Stephens, PNWS-AWWA Liaison

Bob Wubbena, PNWS-AWWA Liaison

Lynn and Bob were asked to take on these roles in fall 2015. Lynn and Bob participate on national CECorps Advisory Committee calls as CECorps Liaisons. These calls occur quarterly with Lindsey Geiger (AWWA) as lead and with representatives from each of the AWWA regions.

In addition to this national involvement, Lynn and Bob have partnered to promote the Community Engineering Corps program in the PNW section. Thus far, they have developed three projects (see *Projects* section below).

On each project, there is active leadership and volunteering among PNWS-AWWA members. This leadership is detailed in the *Projects* section below. The Community Engineering Corps group has 28 members.

Succession Planning:

Given the nature of this committee’s mission and objective and the fact that projects can typically last one to two years, it is important to not have too much frequent turnover in leadership. However, it is also important to give other members the opportunity to take on roles in this proposed committee. An initial proposal for leadership is provided below.

Position	Duration	Comments
CECorps National Liaisons (2)	2 years	Could also serve in other local positions or could be separate, provides opportunity to coordinate with national
PNW Chair	2 years	
PNW Vice Chair	2 years	
PNW Secretary	2 years	At discretion
Advisor	--	Past chairs have the opportunity to volunteer as advisors and offer guidance

Bob is willing to step back from national and section engagement if someone else would like the opportunity. Bob is currently serving on several philanthropic boards (some as chair) where he is trying to do similar work, but in developing countries. He would still be involved as an advisor on an as-needed basis.

Funding:

The Community Engineering Corps does not do construction projects. Therefore, necessary funding can be used to support travel to project sites, water quality testing, field equipment, or support coordination of the committee. In the future, sections and subsections could hold fundraisers to support a particular project or the committee.

2017 Budget:

This year, the water quality testing costs (\$427) are being covered by a USDA grant received nationally by AWWA. Anticipated costs for meetings and travel to the Bullman Beach site are estimated at \$500.

Background:

As a part of the CECorps process, five forms need to be submitted for each successful project.

- 541 – demonstrate that community wants assists and needs the help
- 542 – a qualified project team has been assembled (selected or pulled from AWWA’s list of national volunteers)

- 543 – scope of work
- 544 – project report
- 545 – project closeout

Section Projects:

Since the Fall meeting, there has been a lot of activity with the Community Engineering Corps both nationally and locally. Here’s a brief summary of the local involvement in three projects:

1. **Lackamas Elementary School** – our recommended treatment system was implemented in the early fall before school started. The system has been running well and analytes have been non-detect. We are working on doing a project close-out and having this project as an example that can be shared with others. For this project, we partnered with students at St. Martin’s University. DOH was really happy about our involvement.

Project Team Members:

- Project Lead, Bob Wubbena
- Engineer of Record, Lynn Stephens
- Additional Technical Lead, Bill Persich
- Technical Support, Joanie Stultz
- Technical Reviewer, John Roth
- Technical Reviewer, Doug Howie
- Technical Reviewer, Jim Konigsfeld

Partnering Organization: St. Martin’s University

2. **Skamania Elementary School** – in early December, John Roth and Patrick Craney sampled for water quality (with a focus on lead). We received the results in early January and in the middle of analyzing results/making recommendations for overall actions.

Project Team Members:

- Project Lead, John Roth
- Responsible Engineer in Charge, Lynn Stephens
- Additional Technical Lead, Bob Wubbena
- Review Member, Melinda Friedman
- Review Member, Patrick Craney
- Review Member, Bill Persich
- Review Member, Mike Whiteley

3. **Bullman Beach Water Association** – DOH approached us about another project for a community. The motivation for this project is to provide engineering services to help the BBWA meet their short-term water supply needs, as well as plan for long-term capacity issues and future system upgrades. The system has a new drilled water well that needs to be connected to

the water distribution system. The connection will require a source approval report and design documents. In addition, the community needs to prepare a Small Water System Management Program (SWSMP). The CEC would complete the source approval report and design documents. Then the CEC would support the development of the SWSMP to complete an evaluation of the current infrastructure, and to determine the community's longer-term supply and emergency management strategy.

The community is very excited to have our help. One of the key challenges the community has faced is access to engineering services willing to do work with a remote community. The CEC will help fill that need through a willing team of volunteers.

We submitted the 541 application to the CECorps last week and we are working on forming our team in the next few weeks. Our project lead is Jester Purtteman, former DOH employee who has worked with the community for years. Lynn is reaching out for volunteers for the Responsible Engineer in Charge, technical leads, and review member roles.

For this project, we are looking at partnering with the University of Washington's Engineers Without Borders student chapter.

Project Team:

Project Lead, Jester Purtteman
Technical Support, Joanie Stultz

Planned Partnering Organization: University of Washington, EWB student chapter

Online Webinars:

In 2017, national CECorps will host 6 online lunch-box talks to boost volunteer power. The first web-based training on February 16, 2017 through the following link: [CECorps Lunch-Box Talk #1](#).