



## CASCADE PROGRAM HIGHLIGHT

# Lake Washington Institute of Technology and Cascade: Partnering for a Sustainable Future

## Irrigation Learning Lab

### Problem Statement

Lake Washington Institute of Technology (LW Tech) in Kirkland, Washington offers an Environmental Horticultural program that provides a broad base of knowledge and hands-on experiences for students pursuing a career in horticulture. However, the program included very little content on the importance of efficient water use water or smart irrigation technologies.

In 2014, Cascade Water Alliance (Cascade) partnered with LW Tech to design and install a high-tech automated irrigation system called the Irrigation Learning Lab. The system includes weather-based controllers, soil moisture sensors, and drip irrigation.

### Project Goals

The goal of this project is to provide a hands-on learning experience for students in the program on the basics of irrigation water management including controller scheduling, irrigation system maintenance, and general troubleshooting. An additional goal is to use the irrigation learning lab to instruct members of the industry to provide a foundation of smart water management and current irrigation technologies. The system has been used to train members of Seattle Tilth, King County Housing Authority, and Washington ecoPro candidates, city parks department employees, and staff from many landscape and irrigation companies.

### Outcomes

The irrigation learning lab is a fully functioning irrigation system, utilizing current technologies. During the installation of the learning lab, students learned the basics of trenching, pipe sizing, cutting, gluing, wiring, valve box constructing, and installing sprinkler heads.

This partnership also allows Cascade to utilize the learning lab irrigation system and school facilities to provide continuing education training for irrigation contractors and other industry professionals.



*Learning how to install  
irrigation lines*



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### Implementation and Next Steps

With the support of Cascade, students not only learn how to install, operate, and maintain an irrigation system, they learn the importance of water efficiency and how irrigation system management affects water supply and development. Cascade will continue to work with LW Tech staff to develop additional sustainable landscape technology-based curriculum and will incorporate new content into the program.



*Learning how to  
glue irrigation lines*

### Frequently Asked Questions

*Why is learning and understanding irrigation system an important part of horticulture?*

A well-designed, well-installed irrigation system is a critical element to a healthy landscape and efficient water management.

*Did the irrigation industry participate in the Irrigation Learning Lab implementation?*

Yes, both Hunter Industries and the RainBird Corporation donated all the components for the Irrigation Learning Lab. Their partnership was vital to the success of the project. They continue to donate irrigation system components to provide hands-on learning opportunities for students.

*Who is responsible for the maintenance of the Lab?*

LW Tech now owns the Irrigation Learning Lab and is responsible for its maintenance.



*Learning how to  
install drip irrigation*