

AGUA ES VIDA

A Youth Experiential Learning Program

JOHN WRIGHT

Are we preparing youth for the challenges of the future? It's an age-old question that perseveres and becomes even more critical as we consider scenarios such as climate change, as well as changing economic, social and political crises.

A multi-tiered mentorship and internship program in sustainability education

The Querencia Institute (QI), based in the South Valley of Albuquerque, has undertaken a unique approach to help prepare youth for these challenges. Over the past three years, this nonprofit organization, comprised of educators, natural resource professionals and community activists, has developed a multi-tiered mentorship and internship program in sustainability education. Through hands-on projects and classroom activities, students learn about sustainable agriculture, environmental restoration and water conservation. The Agua Es Vida (Water Is Life) program evolved after QI received a grant from Toyota-Audubon to conduct water conservation awareness training for youth as a response to New Mexico's extreme drought conditions.

Through the program students gain valuable experiences while earning high

school elective credit and a cash stipend. But probably what they most value from the experience is what they learn. High school senior Morgan Tracy said, "I think what I got the most out of this program is a sense of community. I never really cared to know more about the people and resources in my area, but because of the program I have opened myself up to the place where I live."

The students also appreciate the opportunities to do hands-on work. One classroom session focused on the alarming plight of insect pollinators around the globe, a consequence of the use of agrochemicals and land-management decisions. Students planted native flowering plants and built water harvesting structures and a "bee sanctuary" to encourage native bees to nest. They traveled to various parts of the state, such as when they constructed a pollinator habitat at a community garden in Embudo, in northern New Mexico.

The Agua Es Vida program is based at Río Grande High School, where 95 percent of the students come from low-income families. Río Grande High has a history of educational efforts related to the community and environmental issues. It was the first school in New Mexico to install a demonstration photovoltaic system. The special education building is LEED-certified. Students grow vegetables with rainwater fed by the buildings' cisterns. The gardens have provided the greens



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Morning warm-up before tending the land at an organic farm in Albuquerque

used in salads at the school's end of the year bilingual awards dinner.

The Querencia Institute collaborates with the school's career internship program, particularly the Job Mentorship class during the school year and the City of Albuquerque Job Mentorship summer program. Students from the class are recruited to complete community service credit for both the afterschool and summer programs.

Climate change has necessitated various approaches to protecting habitat. Under the mentorship of Maceo Martinet of the U.S. Fish and Wildlife Partners Program, QI students work on several projects to protect or restore habitat on private land. During one such project, they helped install a rainwater harvesting structure that provided drinking water for wildlife in the East Mountains just outside of Albuquerque. Because decreased rainfall and increased temperatures has caused many perennial streams and springs to dry up, wildlife have lost many drinking water sources. Cameras installed near these rainwater structures have shown a variety of wildlife—from deer to bobcats—frequenting the troughs.

The program has grown to include several stages of student development, beginning with an afterschool program where they learn basic skills in gardening and water conservation as they work in the school garden and atrium. They continue with a summer program where they work on hands-on community projects as well

as exploring various topics in class. The final phase is a field internship where students complete projects alongside an environmental professional.

The program helps students understand the political, cultural, economic, ecological and historical factors affecting a community's sustainability. In the field they can see those factors at work. One lesson involves learning how ancient cultures lived in low-water climates by examining the water-harvesting technology they used, such as landscaping to direct water to collection ponds. After learning about where their drinking water comes from, QI students organized a river walk at an Environmental Youth Conference and showed other youth ways in which the water supply in New Mexico gets contaminated.

The Querencia Institute looks to place students who complete the summer Agua es Vida training program into advanced internships. Advanced intern students' projects include fieldwork and outreach. Carlos Flores of the New Mexico Department of Health works with a group of interns who researched the availability of fresh produce in low-income areas of the South Valley. The students found that it was difficult for low-income families to obtain fresh, locally grown foods because grocery stores that tend to stock processed foods were more conveniently located than markets selling fresh, local food. The students mapped the data they discovered and presented the information to the public at the Corrales Harvest Festival.



Students constructing a native pollinator habitat

Flores explained that one of the goals of the internships is to apply sustainability knowledge to the Department of Health's work with local gardening efforts, community service programs and residents. The intent is to create a community of youth gardeners who can view their work from both microscopic and macroscopic lenses—from hands in the dirt to tracking the impact of drought and climate change on the local landscape.

Other advanced intern projects include a collaborative effort with the Middle Río Grande Conservancy District and other agencies to reforest a portion of the bosque that was damaged by fire. Students will map the bosque's present and future conditions and create a space

where cultural uses of riparian plants will be highlighted. The project will culminate in student-led events where the community will be invited to help replant the bosque.

Perhaps one of the project's biggest accomplishments is the students' personal growth. At a meeting to discuss renewing the school's support for the program, one parent remarked that her son's experience changed him—that he has more self-confidence and was taking his studies more seriously. ■

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Students building a hoop house



Constructing a rainwater harvesting structure for wildlife



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