Teachers explore, learn about Solano water to take back to classrooms

- Todd R. Hansen
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Crystal Middle School teacher Lucero Angel points at an eagle while riding on a boat on Lake Berryessa during a Solano Water Institute for Teachers program, Thursday, Aug. 1, 2024. The program offers resources and tools for Solano County teachers that they can use for educational purposes in their classrooms. (Aaron Rosenblatt/Daily Republic)

SUISUN CITY — Lucero Angel teaches not far from the sights and sounds of the Suisun Marsh.

Of course, the nasal honks of geese are often heard as goose and gander navigate low flight patterns through Solano's range of the Pacific Flyway.

On a good day, however, from the doorway of her Crystal Middle School seventh-grade classroom in Suisun City, when even the wind is quiet, Angel may hear snowy egrets or black-crown herons as they travel to and from marsh feeding grounds, or red-wing black birds squabbling over territories or the calls of soaring raptors.

She may even possibly hear a Tule elk bugling – though that could be a train or plane from the equally nearby Travis AFB and Amtrak tracks.

This past week, Angel joined 26 other teachers as part of the annual Solano Water Institute for Teachers – an adventure into the marsh, across Lake Berryessa and finally a visit to the Dunnell Nature Park and Education Center in Fairfield.

"Eye-opening, absolutely eye-opening," Angel said about the experience.

"I had an idea of what this was going to look like, and it wasn't anything like I thought it would look like." she said, adding she was thrilled for the surprise.

While the teachers earn a $400 stipend for completing the three-day institute, plus up to 27 hours of continuing education credits, the primary gain likely goes to these educators' students, who get fresh lesson plans on these natural worlds.

Tara Spinelli, also a Crystal Middle School teacher, attended the 2023 camp and said her experience was "great."

"I completed the Solano Science Camp last summer and I had a great experience and learned a lot," said Spinelli, adding "I recommended the camp to the other science teachers at my school and one of our teachers started this year's summer session."

That was Angel.

This is the fifth year for the Solano Water Institute for Teachers, which is offered through the Solano Resource Conservation District. It started in 2019, and returned after the pandemic in 2021.

"The training will enhance teachers' knowledge of our local water resources and open spaces, while providing them with curriculum and activities they can take back into their classrooms," organizers said.

"The ... place-based focus allows teachers to give local relevance to their lessons about water and conservation."

Brian Brown, who works for the Water Education Foundation and is the Project WET coordinator for California, has been part of the local institute each year.

He said he had been doing one-day workshops in the county for a number of years, so the three-day institute became a natural extension.

Project WET, an international organization based in Bozeman, Montana, also conducts camps at California State University Chico and the Cosumnes River Preserve each summer.

"At some point we are looking to do one in Southern California," Brown said.

Solano County provides an opportunity to teach about three very different water environments, while also showing how they connect with each other and the State Water Project – part of the Department of Water Resources funding piece.

This year it included discussions of sea rise while in the marsh, of water sources and resources at Berryessa, and the focus shifts to the Project WET curriculum efforts at Dunnell, said Brown, who started as a social science teacher but evolved into outdoor sciences.

He remembers the first year of the institute and seeing how many bald eagles there were at Reclamation Point at Lake Berryessa, a kind of aha moment for him. But it's not his moments that are so special.

"You see the same thing" with the teachers as they do "with their students," Brown said.

"You see people get those aha moments and they are going to be taking that back to the kids," said Brown, adding that the group reassembles in October to show how they are working the lessons into their classrooms.

He said they continue to do the one-day workshops, as well, and there have been some teachers in Solano who have been to more than a dozen of those events, which can include such topics as climate, forestry, and this year, groundwater.

The institute brings together a variety of speakers and perspectives, from academia to ground-level experience.

Brown lead the introduction to the program and a host of activities at Rush Ranch on Wednesday. The first day also included a trip out to Grizzly Ranch, a privately owned hunting property in the marsh.

Haley Leffin, a fifth-year teacher, four at Foxboro Elementary in the Travis Unified School District, also attended the institute this year.

She loaded up with experiences to bring back to her fifth-grade classroom, and sees herself using the material across all the subject matters.

"It perfectly ties into the fifth-grade curriculum," she said, but the students will get hands-on learning "instead of reading it in a book and trying to envision it."

She noted that one activity about how water flows can easily be adapted to a medical unit she teaches and how disease or other things travel through the body.

Haley Duncan, an adaptive physical education teacher for the Fairfield-Suisun Unified School District, said the activities are perfect for the moderate to severe special needs students – and can be linked to math, reading and other subjects.

But the fourth-year teacher who students call "coach" learned something, too.

"This was an eye-opener for me, and to be aware of water and how we use it," said Duncan, adding there was especially an awareness of how much water is wasted in daily routines.

Duncan was a para-educator for six years before becoming a teacher.

The centerpiece of the Solano Water Institute is the piloted trip across Lake Berryessa on Thursday, from Markley Cove Resort to the U.S. Bureau of Reclamation Field Office.

Some of the attendees even took a dip.

"Kids will be kids," one teacher said, laughing as she interjected the thought.

Leffin said it was fascinating to learn how the watershed changes during the seasons, and she realized how fortunate Solano County is to have Lake Berryessa as a water source.

This leg of the institute even attracts non-teachers such as Kurt Balasek, a director with the Resource Conservation District, and Solano County Supervisor Monica Brown.

At Dunnell Nature Park on Friday, that is when the real work begins, as the teachers are introduced in greater depth to the Project WET curriculum.

Leffin said it is a good lesson for teachers to be learners, too.

She said teachers "get stuck doing what our curriculum says and what our standards say, and we don't learn ourselves."

Angel could not have agreed more, and said the experience should not be just about the students, but "learning for ourselves."

She urged those teachers who participate in the future to come into the institute with an open mind, and one focused as much on improving themselves as gaining insights for their students.

The Solano Water Institute for Teachers is funded by the Solano County Orderly Growth Committee, with support from the state Department of Water Resources and the School Water Education Program, which includes the Solano County Water Agency; Fairfield-Suisun Sewer District; Vacaville, Fairfield, Suisun City, Vallejo, Dixon and Benicia.

For more information, go to www.solanorcd.org/projects-and-programs/education/educator-workshops.html or send an email to education@solanorcd.org.

Solano County educators ride a boat on Lake Berryessa during a Solano Water Institute for Teachers program, Thursday, Aug. 1, 2024. (Aaron Rosenblatt/Daily Republic)

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Solano County teachers hike in a marsh at Grizzly Ranch during a Solano Water Institute for Teachers program, Wednesday, July 31, 2024. (Aaron Rosenblatt/Daily Republic)

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Haley Duncan, second from right, an adaptive physical education teacher for the Fairfeld-Suisun Unified School District, listens to a prevention from members of the Suisun Resource Conservation District during a Solano Water Institute for Teachers program at Rush Ranch, Wednesday, July 31, 2024. (Aaron Rosenblatt/Daily Republic)

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Crystal Middle School teacher Lucero Angel, second from left, measures water while taking part in an exercise about storm water drainage at the Dunnell Nature Park and Education Center in Fairfield, Friday, Aug. 2, 2024. (Aaron Rosenblatt/Daily Republic)

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Crystal Middle School teacher Lucero Angel inspects a leaf at Rush Ranch during a Solano Water Institute for Teachers program, Wednesday, July 31, 2024. (Aaron Rosenblatt/Daily Republic)

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Steve Chappell, Executive Director of the Suisun Resource Conservation District, gives a presentation on marshes in Solano County at Rush Ranch during a Solano Water Institute for Teachers program, Wednesday, July 31, 2024. (Aaron Rosenblatt/Daily Republic)

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Participants hike through Rush Ranch during a Solano Water Institute for Teachers program, Wednesday, July 31, 2024. (Aaron Rosenblatt/Daily Republic)

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Solano County educators learn about the Glory Hole on Lake Berryessa during a Solano Water Institute for Teachers program, Thursday, Aug. 1, 2024. (Aaron Rosenblatt/Daily Republic)

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Solano County educators ride a boat on Lake Berryessa during a Solano Water Institute for Teachers program, Thursday, Aug. 1, 2024. (Aaron Rosenblatt/Daily Republic)

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