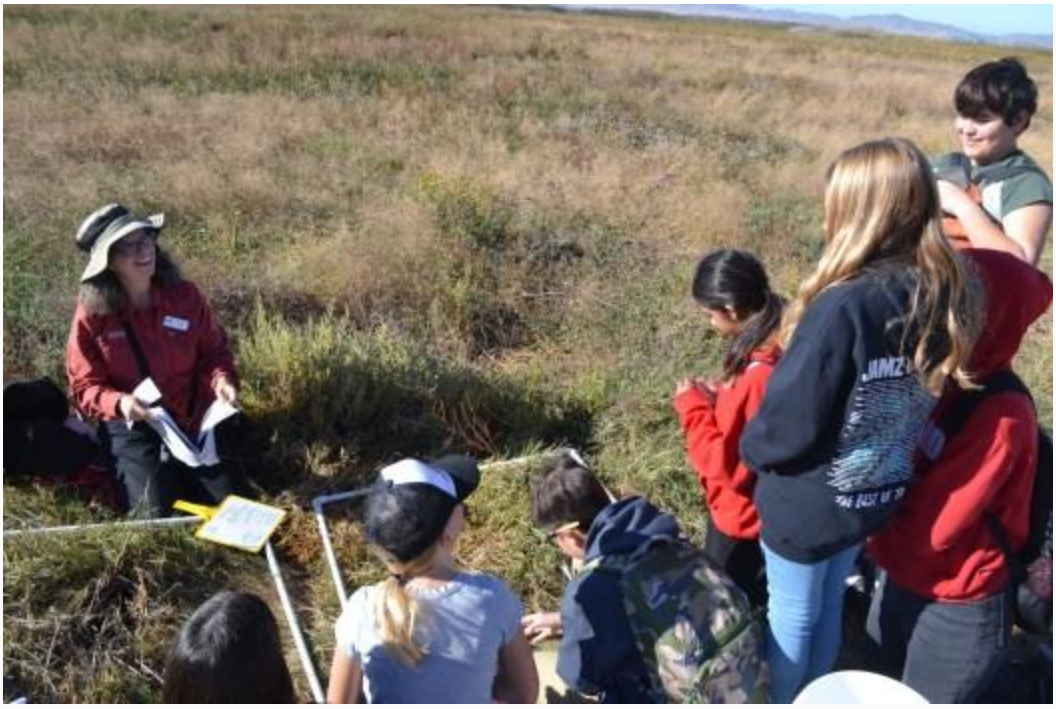
Orchard students explore Suisun Marsh

Solano RCD returns to in-person Watershed Explorers Program



Wendy Low, Solano Resource Conservation District educator, leads Orchard Elementary School students in identifying plants at the Suisun Marsh as part of the Watershed Education Program. (Nick Sestanovich/The Reporter)

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Sixth graders at Orchard Elementary School had a different kind of classroom Thursday morning, one with plenty of sunshine, an abundance of wildlife and surrounded by vegetation, as they learned about plants, water and soil.

Orchard students had ventured over to the Suisun Marsh, the largest brackish water marsh on the West Coast, becoming the third Solano County school to do so as part of Solano Resource Conservation District's Watershed Education Program, which brings sixth graders to the marsh to learn about its ecosystem and how to protect it from pollution.

The program has been a staple of Solano RCD for more than a decade. Even amid the height of COVID-19 restrictions, Solano RCD educators were able to host virtual "field trips" by setting up iPads at the marsh and having students view the activities from their homes.

Shea Kinser, Solano RCD education program manager, said a few in-person programs were done with Vacaville schools in February and March, but this fall marks a complete return to in-person field trips, with seven schools taking part.

"It's been really great to see the kids out," she said. "A lot of them haven't been on a lot of field trips because they've been doing school virtually or in a pandemic-adapted away, so it's been really great to have them out here."

Students took a bus to Rush Ranch on the outskirts of Suisun City, where they were split off into groups led by Solano RCD educators and hiked to three different stations at the marsh where they did different activities and collected data, essentially becoming junior scientists.

One group, led by Solano RCD educator Wendy Low, began on a patch next to the marsh trail just outside Overlook Hill where a “quadrat” — a series of PVC pipes connected to form a square — was placed. Students used guides to identify all the native and non-native plants located within the quadrat, which included pickleweed and saltgrass, named for the crystals of salt found on it.

Low explained that the salt comes from salt water flowing into the marsh as a result of tides.

“The gravitational pull of the moon pulls the ocean water in and out, in and out twice a day,” she said. “The reason that we have salt on these leaves is that saltgrass has adapted to living right here where there’s this mixture of salt water and fresh water.”

Low explained that this mixture of fresh and salt water is called “brackish.” Because the Suisun Marsh provides a mixture of grassland and marshland, she said it is a popular destination for scientists to come study.

“There’s not a lot of wetland/marshland habitat like this left around the Bay Area,” she said.

In the next station, students were given vials of water from the marsh’s slough and were split into pairs of two to measure the dissolved oxygen, PH, temperature and turbidity and phosphate levels. In the third station, students used probes to dig into the soil on the grassland and wetland sides of the marsh and measured the depths of their samples.

Orchard Elementary School sixth graders Juliana Bash, left, and Elizabeth Bautista measure the PH levels in waters from the Suisun Marsh slough as part of a Solano Resource Conservation District Water Education Program field trip Thursday. (Nick Sestanovich/The Reporter)

During the hikes to each station, students were asked to observe wildlife or evidence of wildlife. These included footprints and droppings — the most common being that of jackrabbits and coyotes — but in one instance, they did actually see a long-tailed weasel by the slough. Students paused from their walk and stood in awe of this critter, whom they named “Peter.”

Teacher Megan Morris said she liked seeing her students build relationships with one another and do hands-on activities, providing a glimpse of “what they could potentially be doing as adults.

“I really hope they find a love for science and consider studying it further, help the planet survive,” she said.

The program also placed an emphasis on being good steward of the environment by not littering. At the beginning, students were told not to throw their snacks or trash on the ground.

Kinser hoped students got to learn valuable lessons on local water resources and environmental stewardship by being in a setting as naturally rich as the Rush Ranch Open Space which the marsh is a part of.

“Rush Ranch is such a beautiful space, and so many students haven’t been here before, so it’s great to introduce them to such a unique environment that we’re so lucky to have here in Solano County,” she said. “Students get to see wildlife, they get to see beautiful open space, and they get to do some science so it’s a great place for a field trip.”

The program is funded by Solano County, Fairfield-Suisun Sewer District, Solano County Water Agency and the Vallejo Flood and Wastewater District.

Sixth graders at Green Valley Middle School in Fairfield and Crystal Middle School in Suisun City have already taken part in the program this fall, and future trips are scheduled fro students at Travis Elementary School on Travis Air Force Base, DH White Elementary School in Rio Vista, Hogan Middle School in Vallejo and Benicia Middle School.