



Kaw Nation Environmental Department Director Dejene Alemayehu teaches Oklahoma State University students about water quality at Kaw Lake.

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KNED teaches OSU seniors

On March 28, the Kaw Nation Environmental Department brought Oklahoma State University students to Kaw Lake and taught them sampling near Washunga Bay.

The students' sampling trip would help them prepare for their Capstone presentation for their senior project.

Dr. Dejene Alemayehu supervised them on their

senior projects on sediments.

Skyler Mathews showed them how to take water quality monitor readings, looking at turbidity (or cloudiness) and other indicators. Also, he had them take soil sediment samples, sending a scoop down to dredge out sediment.

Dr. Dejene Alemayehu gave the students tips on

what to look for while sampling. Since the area of the lake had seen runoff from Beaver Creek due to an oil spill, the water would be more acidic than other sampling sites on the lake.

The students would compare their findings with other sampling data. The effects of the oil spill would set their results apart from others.

OSU students read the water quality monitor with help from Skyler Mathews.



New Faces

Cody Wingo joined KNED as an environmental technician in April. He studies process technology at Northern Oklahoma College. Last summer, he interned with the department, assisting with the recycling program.

Inspecting the Kanza Travel Plaza

With help from Cherokee Nation, the KNED inspected underground storage tanks at the Kanza Travel Plaza in late April. The tank inspection is required with the Braman location entering federal trust status.

Previously, the Oklahoma Corporation Commission oversaw inspection of the gas station. Since the land is in trust, the travel plaza is under the Environmental Protection Agen-

cy's jurisdiction, placing the task with the KNED.

The Cherokee Nation only played an advisory role in this inspection. The KNED will inspect the Kanza Travel Plaza twice each year, checking for possible leaks and water quality and ensuring that the station follows regulations.

In this case, the KNED only made minor recommendations.



Dump the Waste

In cooperation with the cities of Newkirk, Kaw City and Braman, the KNED had hazardous waste collections in each city in early April. Residents brought undesired possessions such as old paint, furniture and chemicals.

In Newkirk, 1.64 tons of waste were collected. The Kaw City site received 2.86 tons of waste.



KNED cleans spill at Beaver Creek

Working with the Army Corps of Engineers and the BIA Regional Office, the KNED cleaned up spills from an oil drilling site on March 28 at Beaver Creek. The two spills totaled 90 55-gallon drums of salt water. According to the lab report, the water samples showed no hydrocarbons. However, it found a high concentration of sodium chloride and salinity due to the salt water injection.

Skyler Mathews takes a sediment sample at Beaver Creek after the spill.



Students take in Beaver Creek Wetland

The Kaw Nation Environmental Department guided students from four area schools on tours of the Beaver Creek Wetland between May 1 and 7. Students from Blackwell Middle School, Newkirk Middle School, Braman School and Shidler Middle School explored the wetland habitat as they learned about its role in mitigating effects of climate change.

“The wetland is a huge filter for pollutants,” Environmental Specialist Daniel Ceniti explained to Blackwell students.

The KNED taught students about the wetland’s part in water storage and filtration, sediment trapping, nutrient cycling and flood control.

Students played plant identification games in a pond area and amid tall grass.

“We found a black snake by the creek. It came out of a hole,” Cody Chrisler of Newkirk declared as he and a few friends climbed from the creek bed.

Ceniti taught students about water quality, showing them how to read water quality monitors and look for indicators like turbidity and acidity.

After he relayed a reading with high acidity in the pond, KNED Director Dr. Dejene Alemayehu noted that an oil spill had occurred up the hill in April, explaining that this spiked the acidity of the water. He said, “We advise oil drillers to drill away from bodies of water.”

Alemayehu and Ceniti introduced the children to the concept of soil divisions. Alemayehu dug up and offered students chunks of earth so that they could compare the moisture and texture of different soil levels.

Students also visited the Kanza Museum during the trip. Kanza Museum Director Crystal Douglas told them the history of Kaw Nation. As Newkirk students played the drum, Douglas appeared and explained the relationship of the drumkeeper to the drum.

“When you bless a drum, spiritually, it’s like a brother or a sister. You feed it. You give it light. You take care of it and make sure it doesn’t split,” she said.

