

Water Fest: Clear direction in turbid times

SWCDs from seven counties collaborated with partners including the DNR, the Red Lake Watershed District and the International Water Institute to offer virtual and socially distanced versions of a popular annual event aimed at fourth-graders

A coalition of local governments and conservation organizations in northwestern Minnesota collaborated to deliver a popular annual elementary school event in a safe and flexible format to minimize COVID-19 risks, benefiting 589 students from 23 public and private schools and four home schools.

Since 2001, the Northwest Minnesota Water Festival has educated fourth-graders about water quality and conservation issues. Most years, the event is a daylong field trip offered at the Marshall County Fairgrounds in Warren and the Polk



County Fairgrounds in Fertile on separate days. Educators attend the event that is closest to them. Public and private school students from Kittson, Marshall, Pennington, Red Lake, Polk, Mahanomen and Norman counties attend. SWCD staff from each county along with several conservation partners plan and present the festival.

“We always want kids to learn more about water and its role in our lives, and how it works within the overall ecosystem of Minnesota,” said Heather Donoho, Kittson SWCD outreach specialist, who helped plan this year’s event. “This might be their very first



From left: Donna Christianson, Pennington SWCD outreach coordinator; Heather Donoho, Kittson SWCD outreach specialist; and Barb Molskness, Pennington SWCD coordinator; prepare materials for this year’s Northwest Minnesota Water Festival.

Inset: Totes delivered to 23 schools and four home schools contained everything needed to participate in the festival.

Photo Credits: Pennington SWCD

step in learning about water, and we want that to be a good experience.”

At first, Pennington SWCD Outreach Coordinator Donna Christianson said partners considered canceling this year’s event because of the COVID-19 virus. But conservation groups stepped up to rework the festival into a format that could be experienced either virtually or in socially distanced classrooms. Partners pooled resources and staff to develop tutorials and hands-on activities about watersheds, water quality, groundwater, flooding, aquatic invasive species, aquatic life, the water cycle and fish printing, which involves applying ink to a freshly-caught fish to use as a stamp to create an image of the fish on paper.

In addition to eight* SWCDs, the Red Lake Watershed District, the Minnesota Department of Natural Resources, the Agassiz National Wildlife Refuge and the International Water Institute assisted by developing lesson plans and activities.

The festival is funded by a \$1,000 grant from the Minnesota Ground Water Association Foundation. The partnering SWCDs cover additional expenses, Christianson said. This year’s event cost about \$2,000, with costs primarily covering materials.

In mid-October, SWCD staff packed materials for the virtual water festival into totes, which were then delivered to 23 schools

“ The hope is to spark an interest for natural resources in them that continues to grow ever brighter as they mature into adults. ”

— Donna Christianson,
Pennington SWCD outreach coordinator

and four families who homeschool. To mitigate the risk of spreading the virus, Donoho said SWCD staff members wore masks, sanitized their hands regularly and met teachers outdoors to deliver the totes.

“It was pretty low-to-no contact for the whole experience,” Donoho said.

Each topic covered by the festival included a lesson plan, video and an interactive activity. While designing activities, Donoho said organizers tried to use supplies readily available in schools and homes.

For example, one activity asked students to crumple a piece of paper to model watershed topography. Students then sprayed water on their “watersheds” to observe how water flows from high points to low points. In another activity illustrating how sediment affects turbidity, students added flour to a glass of tap water. Students were encouraged to create Old West-style “unwanted” posters for invasive species. Crossword puzzles, matching games and word finds reinforced vocabulary.

The virtual water festival was designed to be customizable, Christianson said. Teachers could hold an all-day event like the

in-person festivals of years past, or they could intersperse the lesson plans within their regular curriculum over weeks or months.

Cathrine DeMars, who teaches fifth grade at St. Bernard’s school in Thief River Falls, teamed up with fourth-grade teacher Kristi Johnsrud to deliver the water festival to students in the classroom as an all-day event on Oct. 27.

“I think it’s important that teachers make this water festival their own,” DeMars said. “Use the materials, use the ideas. We know our students and how they will best engage with the process.”

DeMars said the students were engaged and inquisitive throughout the festival. They learned a new word: turbidity. Students were especially excited to create a “water cycle bracelet” with bead colors corresponding to vocabulary they learned.

“They knew that bracelet was coming up,” DeMars said.

DeMars and Johnsrud’s version of the water festival included six stations covering watersheds, water quality, flooding, the water cycle, aquatic life and fish printing. Students experienced one

station at a time to reduce risks that could be caused by crowding around multiple tables.

To teach students about flooding, Johnsrud demonstrated with a painting tray and sponges.

“I think the activities we do with the students, that’s a better way to illustrate the concept,” Johnsrud said. “Lectures can only hold their attention for so long.”

In Johnsrud’s demonstration, the tray represented a watershed; the sponges represented wetlands. Adding water to simulate a heavy rainfall showed how wetlands hold back some of the water, and then slowly release it, which prevents downstream rivers from rising too high or too quickly. Johnsrud took sponges away in phases to show students what happens when wetlands are absent.

“I think for (the students), it’s all about awareness that it exists and that we don’t take water for granted,” DeMars said. “Man can’t create more water, so it’s really important for us to conserve it.”

Christianson said she hoped this year’s virtual festival would help students gain an understanding of water and some of its conservation concerns.

“The younger you can start teaching kids about natural resources, the better” Christianson said. “The hope is to spark an interest for natural resources in them that continues to grow ever brighter as they mature into adults.”

*Polk County includes two SWCDs covering the eastern and western portions of the county. Eight SWCDs from seven counties contributed to the Northwest Minnesota Water Festival.