

Classroom conservation: High school students contribute to state-backed stormwater solution



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Watershed-Based Implementation Funding (WBIF) is funded solely by the Clean Water Fund. WBIF grants support watershed planning partnership priorities throughout Minnesota.

MENDOTA HEIGHTS — Abril Ortiz Chavez spent part of one springtime lunch hour carefully packing soil around the roots of wild strawberry and blue indigo plants in a new bioretention basin in the Two Rivers High School parking lot.

Ortiz Chavez, a sophomore, joined about 20 classmates for the midday planting event.

“We’re planting here so when it rains, the runoff won’t go to the Mississippi River — it will stay here and make a beautiful garden,” Ortiz Chavez said. “I think it’s a great opportunity to give back to the community.”

The bioretention basin will function like a large rain garden, capturing and treating runoff from the parking lot and holding it on site, rather than allowing it to drain into nearby Valley Creek, which connects to the Mississippi River. Native plants naturally help filter water via deep root systems. The basin encompasses approximately 1,400 square feet and is designed to hold up to 1 foot of water.

“Our parking lot gets a lot of salt in the wintertime due to lack of sunlight, and that was a concern for us,” said Meghan Bernard, sustainability manager for West St. Paul-Mendota Heights-Eagan Area Schools (ISD 197).

“We want to be good stewards of the environment by protecting our waters and reducing pollution.”

A collaboration between the Dakota County Soil and Water Conservation District (SWCD) and ISD 197 made the project possible. Dakota County SWCD leveraged \$50,000 in Watershed-Based Implementation Funding from the Minnesota Board of Water and Soil Resources (BWSR); ISD 197 contributed approximately \$20,000.

WBIF offers a consistent, reliable state funding source to meet local conservation needs. BWSR awards WBIF every two years to eligible planning partnerships. Partnerships then dedicate funding to projects that address priority resource concerns identified in comprehensive watershed management plans. Since BWSR began distributing WBIF in 2018, partnerships have received more than \$190.4 million to fund local projects.

Reducing chloride pollution from winter salting activities is a priority identified in the [Lower Mississippi River Watershed Management Plan](#), which the Dakota County SWCD contributed to.

“With that funding (WBIF), we’re able to install projects to improve water quality, with bonus habitat benefits,”

Left: Students helped plant native vegetation in a new bioretention basin located in a parking lot median at Two Rivers High School in Mendota Heights on May 21. **Center:** Dakota County SWCD Resource Conservationist Elizabeth Asendorf packed soil around the roots of a little bluestem plant during the planting event. **Right:** Abril Ortiz Chaves (foreground), a sophomore at Two Rivers High School, planted blue indigo and other native plant species during her lunch hour on May 21.

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Mary Juhl, BWSR



Students helped plant native forbs, grasses and shrubs in a new bioretention basin at Two Rivers High School in Mendota Heights on May 21.

said Elizabeth Asendorf, Dakota SWCD resource conservationist, who oversaw project design, construction and planting.

This project also meets another of the Lower Mississippi River Watershed Management Organization's (LMRWMO) watershed management plan goals to implement stormwater best management practices within Valley Creek that address phosphorus, sediment and volume issues in the watershed. The basin is estimated to reduce sediment entering Valley Creek by 800 pounds annually and reduce phosphorus travelling downstream by 2.1 pounds

annually. It will provide 34,500 cubic feet of water storage.

Students helped plant more than 1,200 native plants on May 20 and 21. Species included black chokeberry, red osier dogwood, fox sedge, prairie dropseed, black-eyed Susan, New England aster, wild strawberry, boneset, Joe Pye weed and hoary vervain.

"We chose a mix of forbs, grasses and shrubs — we want it to be as diverse as possible," Asendorf said.

Two contractors assisted with the project: Mark's Bobcat Services of Prior Lake constructed the basin during several weeks in

April. Great River Greening — a nonprofit organization based in St. Paul that restores and manages natural lands — sourced the native plants for the bioretention basin and coordinated volunteers to plant them. Educational signs will be added later this summer.

Bernard said the project aligns with ISD 197's [sustainability goals](#), which include reducing waste, investing in energy efficiency and protecting natural resources.

"There's a great case to be made for sustainability in education," Bernard said. "Helping students connect to the natural world by

giving them a hands-on experience will always be different than reading about it in a book."

The bioretention basin is located in a formerly unused, prominent area of the parking lot near the school's football field and directly outside the district office.

"People will walk past this every day and appreciate not only its beauty, but the change it's creating," Bernard said. "A space that was barren is now an environmental showcase."

BWSR staff members write and produce Snapshots, a monthly newsletter highlighting the work of the agency and its partners.