

Environmental Education Coordinator Emily Vogelgesang teaches students how to identify invasive spotted knapweed which can impact the growth of the federally-threatened Pitcher's thistle that grows on Big Charity Island. Cover Photo: Au Gres-Sims fourth-grade students look for macroinvertebrates caught in a net during a stream investigation on the Au Gres River.

absolutely love the opportunity to be able to go outside and get their hands dirty and learn from nature," said Chad Zeien K-12 Principal at Au Gres-Sims.

"Besides the educational benefits, it's a benefit to the community," added Brook Begress, fourth-grade teacher at Au Gres-Sims. "They're learning that, just because I'm a little fourth-grader doesn't mean I can't help my environment and community."

Huron Pines comes together with the U.S. Fish and Wildlife Service, Au Gres-Sims School District, Brown's Landing, Charity Island Transport, Inc., Great Lakes Stewardship Initiative Network, Michigan Department of Natural Resources, Michigan Natural Features Inventory, Michigan Sea Grant, Michigan State University Extension, Saginaw Bay Cooperative Invasive Species Management Area (CISMA) and Saginaw Valley State University to make these field experiences possible for the students.

The new stormwater project in Au Gres will continue to strengthen the connection between students, the environment and the community. After the initial assessment is complete, Huron Pines will present an

action plan to the city council and help them seek funding to implement suggested changes to improve water quality. The school has already expressed interest in inintegrating a rain garden project into the Au Gres-Sims curriculum as part of the stormwater improvement plan.

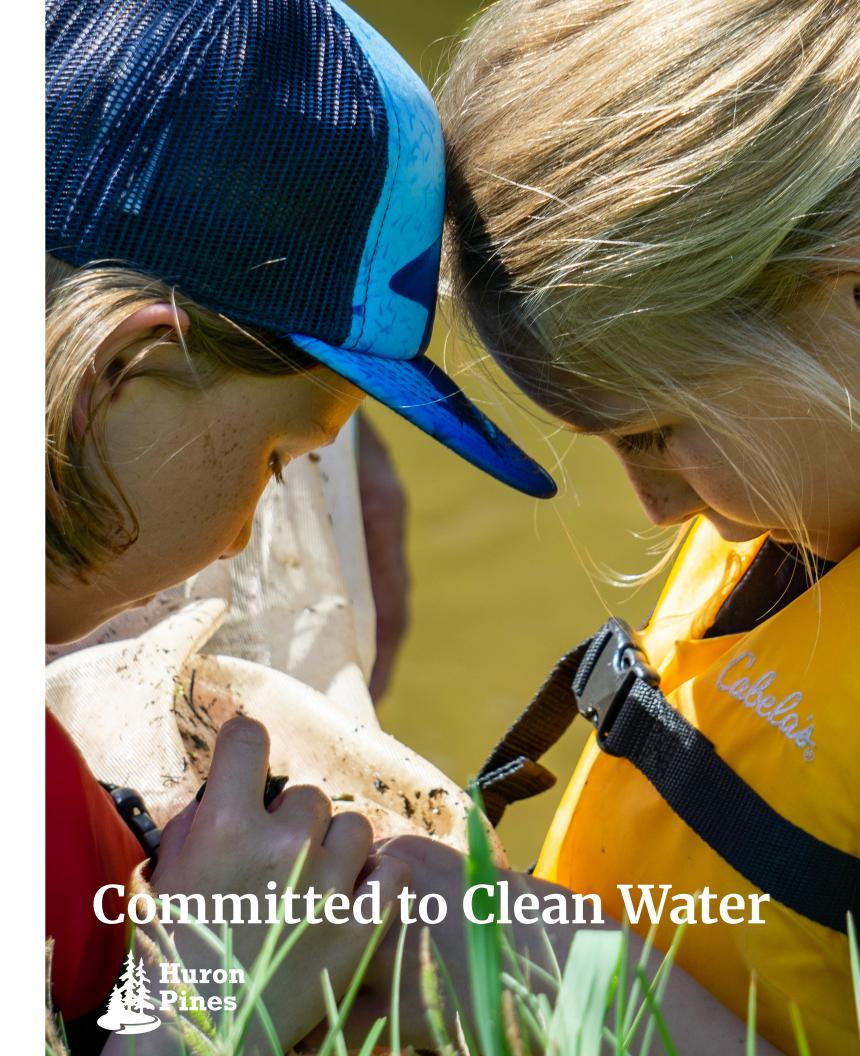
#### **Building a Better Future for the Great Lakes**

Huron Pines will continue to improve water quality along the coast in the coming years and is currently seeking four coastal communitities to partner with on water quality and green infrastructure initiatives. With these projects we hope to do more than keep beaches open—we want to help build stormwater curriculums in schools and get the community involved in order to build a better future for the Great Lakes region and natural resource protection.

We need your support to reach every community on Lake Huron's northern shore. Please consider supporting our efforts to protect water quality across the Great Lakes with a contribution to Huron Pines by mail or through our website at huronpines.org/donate.

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# **Community Partnerships Support Clean Water Stewardship**

The Saginaw Bay truly begins 50 miles inland, where the Au Gres and Rifle Rivers start their flow toward Lake Huron. Together these waterways make up an ecosystem that helps determine the economic, environmental and recreational well-being of Northeast Michigan. The communities of Rose City, West Branch and Au Gres know this better than anyone; Huron Pines first began working with the residents of these cities because of their strong ties to natural resources, and their commitment to the environment.

In 2012, Huron Pines started work to protect the Rifle River with projects on the Rifle River in West Branch and Houghton Creek in Rose City. That work laid the foundation for a program that Huron Pines plans to expand to the coastal town of Au Gres and up the entire northern Lake Huron coast to ensure safer, cleaner water for people and wildlife to enjoy.

When an entire community is involved in the restoration and protection of their resources, the impact is immeasurable. In addition to successfully completing restoration and improvement projects, what results is a strong foundation for long-term environmental sustainability. The future of natural resource protection brightens when a city council or a group of

fourth-grade students begin to look at the world with a conservation mindset.

## Preserving Clean Water in the Rifle River

The Rifle River project was a priority because of its environmental impact and for the community benefits it provided. According to Mike Kelly, manager of the Saginaw Bay Watershed Initiative Network (WIN), a conservation fund established to protect the Saginaw Bay, natural resource protection is fundamental to the quality of life and economic well-being of West Branch and Rose City. "Whether it's Houghton Creek or the Rifle River, both support a high-quality fishery that brings people from throughout the state to come and fish for trout," Kelly said. The Rifle and its tributaries also attract outdoor enthusiasts with opportunities for camping, canoeing and kayaking.

Because the health of the region's natural resources is so integral to the surrounding communities, Huron Pines worked closely with residents and local organizations from the city council to the local 4-H, to plan and implement clean water solutions. The community was the most involved in the installation of six rain gardens that naturally filter pollution from

stormwater and snowmelt before it can reach nearby streams. The largest rain garden was built at the Ogemaw Heights High School and involved participation from the entire West Branch Rose City Area School District.

## **Building a Conservation Mindset**

West Branch-Rose City School Superintendent, Philip Mikulski said the rain garden project was about more than building a garden, it was a teaching opportunity that spanned across elementary, middle and high school classes. "Our kids are doing great things—this rain garden is one thing they do and educationally we're doing everything we can to teach them about the environment and their impact, and I think they are taking it to heart."

High School student Brady Zettle helped build the garden and said his favorite part of the project was, "Giving back to the community and seeing how we can make this rain garden make the Rifle River a little bit healthier."

Two of the major garden construction days took place in 95-degree summer heat. "It was a ton of work, and it wasn't just students and staff. It was a ton of community members," said Debra Abraham, assistant to the superintendent, who was very involved in the entire garden process and helped with construction. "It was hard work, but it was great."



Debra Abraham cuts the ribbon to mark the official opening of the Ogemaw Hieghts High School rain garden.

In addition to the community rain gardens, Huron Pines worked with West Branch and Rose City to install mechanical oil and grit separators in each city to filter pollution from stormwater runoff, and completed over 800 feet of streambank restoration work along Houghton Creek and the Rifle River to reduce erosion and remove excess sediment from the water.

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## Philip Mikulski, Superintendent

#### **Protecting Water Quality Along the Coast**

Huron Pines has expanded its stormwater efforts, taking lessons from West Branch and Rose City and applying them to the Northeast Michigan coast. Beach closures on Lake Huron are on the rise, some due to pollution that is the direct result of untreated stormwater runoff entering the water in high volumes after heavy rainfalls or other major weather events. Our goal is for every coastal community to benefit from the environmental, recreational and economic gains that come from a well-executed stormwater plan.

Au Gres in the Saginaw Bay, was the first coastal city to receive a stormwater assessment. The project was a natural extension after years of working with the community through a partnership with the Au Gres-Sims School District. Huron Pines has been working with volunteers, partner organizations, administrators and teachers to build programs that help students become stewards of the Great Lakes through river investigations and field visits to Big Charity Island, part of Michigan Islands National Wildlife Refuge (MINWR).

"We have a lot of our kids who don't necessarily like to learn from a book per se or from a computer, but

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