

STREAM-LINE

News for residents of the Lester-Amity rivers watershed

Autumn 2007

Beauty and the tarmac

From run-off to rain garden

Two years ago, a wide, red ditch would have been the main escape route for rain falling on the parking lot of North Shore Community School in Duluth Township. Carved deep into the orange-red clay soil by erosion, the ditch channeled much of the parking lot's warm, gritty run-off into the woods nearby. There, it would eventually meet with Schmidt Creek, a local trout stream. A class of conscientious fifth and sixth graders noticed the problem. After working with school staff, parents and county water professionals, students can today be proud of a new feature near their playground--a rain garden.



Lauren Koshere

What did the school yard look like before the rain garden? Pictures and more information can be found at LakeSuperiorStreams.org.

Increasingly important and popular in urban and developing rural areas, rain gardens are simply gardens of native plants suitable for soggy, low-lying areas. The gardens slow, clean and cool run-off from rain and melted snow. They can be big or small, elaborate or simple. And they benefit everybody.

Because native plants have been shaped by the local climate, rain gardens are a low-

maintenance source of beauty. They absorb water and nutrients, filter run-off and reduce erosion, improving the quality of local streams. Rain gardens are also ideal cooperative planning projects, and can be valuable teaching tools.

"[The garden] involves students using math and science to study a real-life, local environmental issue."

*~ B.J. Kohlstedt
Curriculum director*

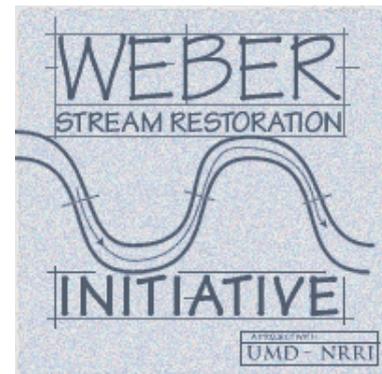
"It involves students using math and science to study a real-life local environmental issue, and it incorporates service learning and community involvement," said B.J. Kohlstedt, the school's curriculum director. Students identified the school's

drainage problems in a 20-week watershed class taught by teacher-volunteer Mike Nordin, and the rain garden was its culminating project.

Planning occurred over several months in spring of 2005 with engineering and technical assistance from the South St. Louis Soil Water

Conservation District. The school had a special planting day in September where each of North Shore's 240 students--mentored by seven fifth and sixth grade students from the watershed class--had the chance to put in a plant.

Two years later, the 800-square-foot



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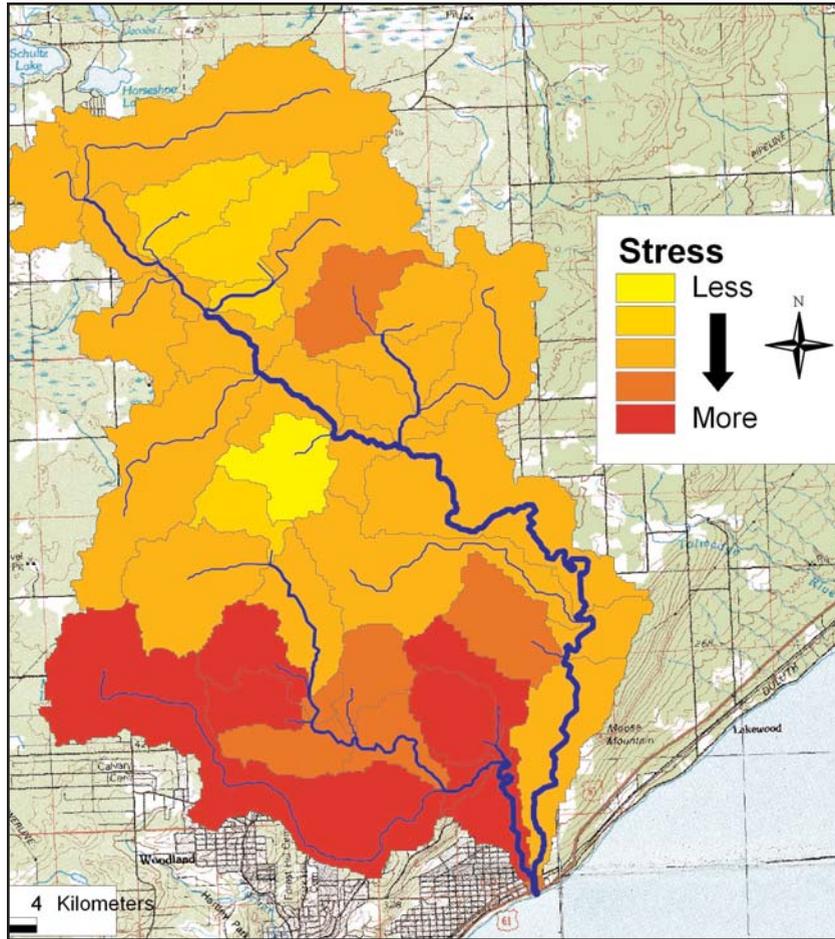
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Are we 'stressing out' the Lester-Amity?

How do you respond when someone asks where you are from? The United States? Minnesota? The Duluth area? What about the Lester-Amity watershed? It is as much our home as the other places that identify us, and watershed boundaries also define us. This map shows the entire Lester-Amity watershed and the patches of smaller sub-watersheds for each stream within it.

Red colors on the map indicate areas with the most potential to stress streams. The colors represent composite scores that represent population and road density in a given area and reflect conditions on the land both near and upstream of that area. They also suggest where stream stress-causers may accumulate as water flows from each sub-watershed into main streams and, ultimately, to the mouth of the Lester River on Lake Superior. The scores signal to scientists where streams may be stressed and help them decide where to focus their research in the watershed.

With information they gather from testing the streams, scientists will be able to see how land use and land cover relate to water quality, fish and bugs--all indicators of stream health. Once we understand those relationships, we can improve our land use planning decisions and reduce our impacts on the streams of the region we call home--the Lester-Amity watershed.



What is a watershed?

Unlike a township or other political boundary, a watershed is a natural boundary that depends on the lay of the land. It defines the area where rain and snowmelt drains to the same lake or river. Communities across the nation are turning to watershed protection to sustain the watershed services that they stand to lose as they grow. Remember, we *all* live in a watershed! For more information visit lakesuperiorstreams.org/weber/index.html.



*Cost to fix erosion problem on the lower Poplar River \$500,000.00 and counting**

Preventing costly damage to the Lester River? Priceless.

There are some things money can't buy--like protecting a clear, cool stream that relaxes and refreshes us, calls children to exploration, and gives trout all they need to flourish.

**Reflects current state and federal grant totals for the "megaslump" bank stabilization project. Find out more at lakesuperiorstreams.org/northshore/poplar.html.*

Clip and Save!

What's Water Worth to You?

Priceless things you can do:

- Keep gutters, streets, and storm drains clean. Never use them for dumping.
- Don't blow or sweep grass and leaves into the street.
- Clean up pet waste.
- Plant a rain garden and install rain barrels.
- Decrease your use of fertilizer and herbicides.
- Reduce impervious (paved) surfaces.
- Compost yard waste or take it to the Western Lake Superior Sanitary District (218-722-0761).

Charrette? You bet! *A development design for everyone*

In a city named for a French explorer (think *Sieur du Lhut*), we're used to words from the French. But what about charrette? Residents of the Amity Creek watershed had an opportunity to learn this French word last April as they participated in a cooperative planning session, or charrette, for a potential new development. The project, funded by the American Institute of Architects Minnesota Chapter and facilitated by the University of Minnesota Sea Grant program, focused on nearly 100 acres of land on Amity Creek between Woodland Avenue and Vermillion Road.

Charrette is a general term for a process of intense planning and design for development—and it's all about cooperation. Last spring's two-day Amity Creek charrette incorporated input from groups as varied as the City of Duluth, the Minnesota Department of Natural Resources and the Environmental Protection Agency. Joining those and other agencies were developers, architects and, most importantly, local residents. After several rounds of discussion and feedback,

they reached a neighborhood development plan suiting everyone's interests.

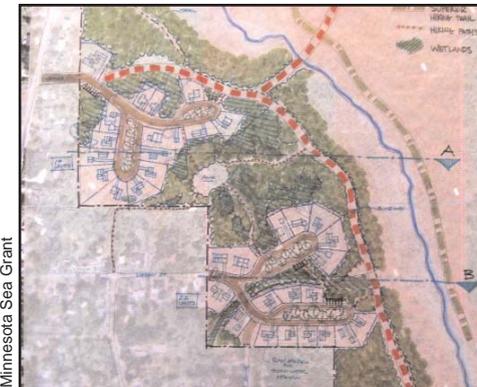
The resulting design allows for even more housing than the land's existing zoning while reducing negative effects on Amity Creek. It calls for 42 new multi- and single-family homes, walking trails and a bike path along Amity Creek. It incorporates park space and rain gardens that beautify the area which also catch, clean and cool run-off from roads and roofs before the water gets to Amity Creek. In all, the new design would produce only half the run-off that would occur with existing zoning.

Now in the hands of the City of Duluth, the plan will likely be modified depending on future public comments, when the land is developed and by whom. Even though the design is not yet a reality it shows that nobody loses when everyone's interests are considered. The city benefits from a sound development plan, the property owners' land retains its deserved value and the community is able to protect and enjoy its most valuable natural asset—the waters of Amity Creek.



Minnesota Sea Grant

High impact: Current zoning allows for 36 lots—some not buildable because of steep terrain, and 9.2 acres of impervious (paved) surfaces.



Minnesota Sea Grant

Wise planning: The charrette's ultimate design calls for 42 housing units, green space, trails and only 4.7 acres of impervious (paved) surfaces.

Spot a problem?
Let us know!



Why is that mud running into a storm drain? What's that unusual smell? That doesn't look right... If you find yourself thinking any of these thoughts, don't hesitate to act. Chances are, you've spotted a problem that needs attention!

It's easy to report water and run-off problems that may endanger our streams and Lake Superior:

In Duluth, call the Regional Stormwater Protection Team hotline at **(218) 529-3281**.

Or click on "Spot a Problem" at Lakesuperiorstreams.org. (To report problems outside of your neighborhood, check the website for relevant contact information.)

Your action may be what is needed to keep your backyard, your local stream or Lake Superior clean and healthy!

Rain Garden, from page 1

garden is home to nearly 1,000 plants from at least 25 native species. As in many gardens, some plants do better than others.

"One-third of the garden has really taken off," observed Nordin, "and two-thirds are still iffy." Because it is young, the garden still requires regular weeding and maintenance, but it should grow more self-sufficient as it becomes more established. Despite the challenges, the garden has attracted butterflies, caterpillars, hummingbirds and dragonflies.

And the wide, red

ditch? It is still visible, but the rain garden has slowed erosion and given time for flowers like daisies to sink their roots into the ditch's former water channel. Just feet away from the parking lot, the garden's elegant Blue Flag Irises, grass-like sedges, and hearty False Dragonhead plants hold up to heavy rainfall and help to spread and clean the run-off. Now, water from the school's parking lot arrives at Schmidt Creek not brown and warm, but filtered, clear and cool—just as the trout like it.

The Weber Stream Restoration Initiative is a unique collaboration of agencies. The overall goal is to use the best science available to keep the healthy streams clean and restore damaged systems in the Lake Superior watershed. It coordinates with the Regional Stormwater Protection Team.

For more about the western Lake Superior streams and what you can do to protect them visit lakesuperiorstreams.org Click on the Weber Restoration link for more information.

Questions?
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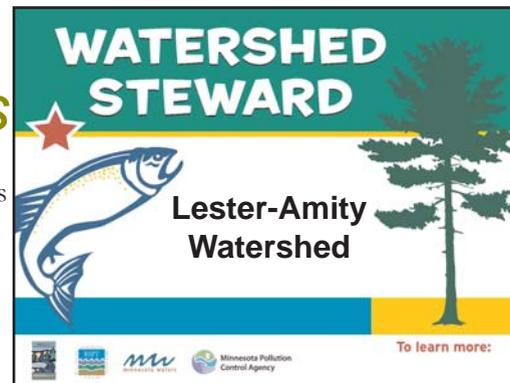
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A sign of the times

If you saw a sign like this in your neighbors' yard, what would you ask them about it? Would you notice anything different about the size of their lawn, the number of trees in their yard or the types of plants in their gardens? The Minnesota Pollution Control Agency's Lake Superior Basin Plan and the people involved in a new watershed project hope so.

If you haven't seen one yet, you just might see a Watershed Steward sign in a neighbor's lawn soon. Neighbors displaying this sign believe in protecting the waters of the Lester-Amity watershed. Chances are, those neighbors are

making wise choices about landscaping their lawns or creating rain gardens to reduce run-off and make their yard watershed-friendly. And those neighbors are probably ready to share their landscaping tips and love of the Lester-Amity watershed with others. So when you see a Watershed Steward sign in your neighbor's lawn, go ahead-ask them about it. You might realize that it's time you became a steward, too.



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[Address Service Requested](#)



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Permit No. 705

Get to know your watershed!

