

November 2019



Inside this issue:

Buffer Update & Tree Program	1
Employee Updates	2
MN Geological Atlas Survey	3
Raingardens	4
Shoreline Restorations	5
Palmar Amaranth	6
Aquatic Invasive Species	7

Buffer Enforcement

The final deadline for seeding buffers has come and past and Polk County is now looking at moving into the enforcement phase. Required buffers on Public Waters (50') were to have been seeded by November 1, 2017 and Public Drainage systems (16.5') were to be seeded by November 1, 2018. If a landowner is out of compliance with the buffer requirements Polk County Planning and Zoning will issue a Notification of Non-compliance or Corrective Action Notice to the parcel owner with a potential Administrative Penalty Order (APO) to follow if no action is taken by the parcel owner to become compliant. The Board of Water and Soil Resources (BWSR) is also notified when these letters are sent out. The East Polk SWCD is not in the role of enforcement; Polk County has elected jurisdiction of enforcement.

Non-compliant public water landowners received a Notification of Noncompliance or Corrective Action Notices last winter and if the parcel is still non-compliant Administrative Penalty Orders will be sent out. Landowners with non-compliant public drainage will be receiving letters Notification of Noncompliance or Corrective Action Notices this winter. Polk County had new imagery as of May 2019 and compliance will be determined based on review of this imagery. **Buffers not seeded will be facing enforcement.**

The East Polk SWCD can assist you with an onsite determination to ascertain the need for a buffer along the public water or public ditch on your property. We can also assist with determining if the site qualifies for an approved alternative practice, seeding, and staking. Our goal is to work with you to bring you into compliance with the Buffer Law.

East Polk SWCD's Tree Program

We are currently accepting orders for the spring 2020 tree planting season. Please use the enclosed tree order form to make selections and submit it with your payment (cash or check only). Bare root trees are sold in bundles of 25 or individually. Orders need to be placed and paid in full by **February 14th, 2020** to ensure fulfillment. Trees are delivered to us in late April or early May depending on the weather. You can expect a post card from us around that time with specific dates and times for our tree pick-up day. You can also watch for updates on our website: www.eastpolkswcd.org. East Polk SWCD does not accept any responsibility for the survival of any trees, and we are unable to offer discounts for any potential leftover trees.



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Buffer Update & Tree Program	1
Employee Updates	2
MN Geological Atlas Survey	3
Raingardens	4
Shoreline Restorations	5
Palmar Amaranth	6
Aquatic Invasive Species	7

Employee Update: New Titles and Faces

Rachel Klein: District Manager

After serving as the Interim District Manager for a couple of months the Board of Supervisors hired Rachel Klein as the new East Polk SWCD District Manager on February 19.

A native of Grand Forks where she graduated from Central Highschool in 2010. Rachel attended the University of Minnesota Crookston and earned her B.S. in Agronomy with a minor in Agricultural Business. She has been with the East Polk SWCD for a total of two and a half years and has held the Area Certification Specialist position, for the Minnesota Ag Water Quality Certification Program (MAWQCP), and District Technician positions before accepting the District Manager position. Prior to working for the district, she worked in ag retail selling seed and chemical.

Rachel and her husband have a MN Ag Water Quality certified hobby farm and registered feedlot in Red Lake County near Brooks. They have horses, laying hens, dairy goats, sheep, and cattle. Rachel enjoys riding her horses, working with the animals, tending to the garden, making goat milk soap, and kayaking. This Thanksgiving Rachel and her husband are excited to be welcoming their first child into their family.

Rachel's duties with the district include working with the Buffer Program, serving as the Polk County Feedlot officer, working with the Wetland Conservation Act, and administration of the financials and day to day operations of the district. She is excited for this new opportunity with the district.

Marea Schommer: District Technician

Marea began working for the East Polk SWCD as an intern this summer. She was later promoted as a district technician as of September, 2019. Marea was raised in a small town of McIntosh, MN and graduated from Win-E-Mac Highschool in 2015. She moved to Grand Forks, ND, to attend to the University of North Dakota and graduated with a B.S. in Fisheries and Wildlife.

Now Marea devotes most of her time with friends and family while back in her hometown. She also enjoys the outdoors where she can go hunting, fishing and hiking.

Marea's responsibilities with the district involve rainfall, stream and lake monitoring, the shoreline restoration program, raingarden program and tree sales. This year she also participated in the Warren and Fertile water festival and Pennington Outdoor-day. She is looking forward to this new opportunity and can't wait to meet new faces.

MN Geological Survey: County Geological Atlas Program

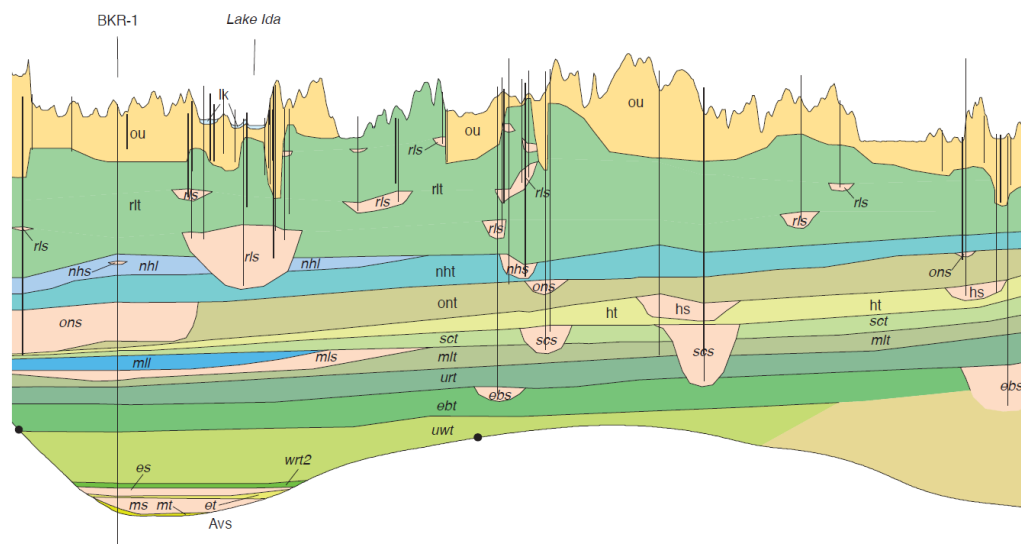
County geologic atlases provide information essential to sustainable management of ground water resources, for applications such as monitoring, water allocation, permitting, remediation, and well construction. They define aquifer properties and boundaries, as well as the connection of aquifers to the land surface and to surface water resources. They also provide a broad range of information on county geology, mineral resources (including construction materials), and natural history.

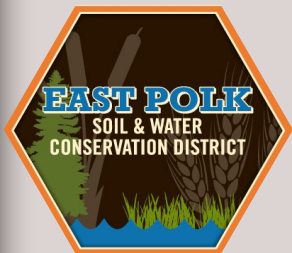
A complete atlas consists of a Part A prepared by Minnesota Geological Survey (MGS) that includes the water well database and 1:100,000 scale geologic maps showing properties and distribution of sediments and rocks in the subsurface, and a Part B constructed by the Department of Natural Resources (DNR) that includes maps of water levels in aquifers, direction of groundwater flow, water chemistry, and sensitivity to pollution. Atlases are usually initiated by a request from a county and an offer to co-fund or provide in-kind service. MGS is committed to the expeditious completion and periodic updating of atlases statewide.

GEOLOGIC ATLAS USER'S GUIDE is a document intended for people that don't have training in geology or hydrology. Every Minnesotan uses water, and every Minnesotan has an effect on water, so we all have a role and an interest in how that resource is distributed, how it is used, and how we affect its quality and availability. The purpose of this Guide is to explain, through reference to County Geologic Atlas products, where our water comes from, how geology and climate control its distribution, and how we can manage water to maximize its availability at the highest quality.

Atlases begin with compilation of a database of subsurface information. The most abundant data source is the construction records of water wells. With the cooperation of the County, accurate digital locations are established for these wells to support their use in mapping. Concurrently, geologists visit the project area to describe and sample landforms and exposures of rock or sediment. An initial assessment of the geologic data is then completed to focus additional data gathering including shallow and deep drilling programs.

Analysis of the complete data set is then completed, and maps and associated databases are prepared for use in geographic information systems (GIS) and distribution via DVD and the web. Most of the products are also printed for the benefit of users who prefer this format. GIS files are available for atlases beginning with C-7. Scott County has been revised, so the original C-1 maps are available as scans, while the C-17 revision is available with GIS files.





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Buffer Update & Tree Program	1
Employee Updates	2
MN Geological Atlas Survey	3
Raingardens	4
Shoreline Restorations	5
Palmar Amaranth	6
Aquatic Invasive Species	7

Rain Garden Program

What are rain gardens?

A rain garden is a shallow basin planted with a variety of native flowers, shrubs, and grasses. When designed and functioning properly they slow and filter runoff and can also help prevent erosion and remove pollutants.

Native plants are used because they tend to have much deeper roots and generally require little to no maintenance. These deep-rooted plants more efficiently capture and filter contaminated runoff from your roof, driveway, and other hard surfaces. Rain gardens are designed to hold runoff allowing the nutrient rich sediment to settle into the soil where the plants absorb the nutrients.

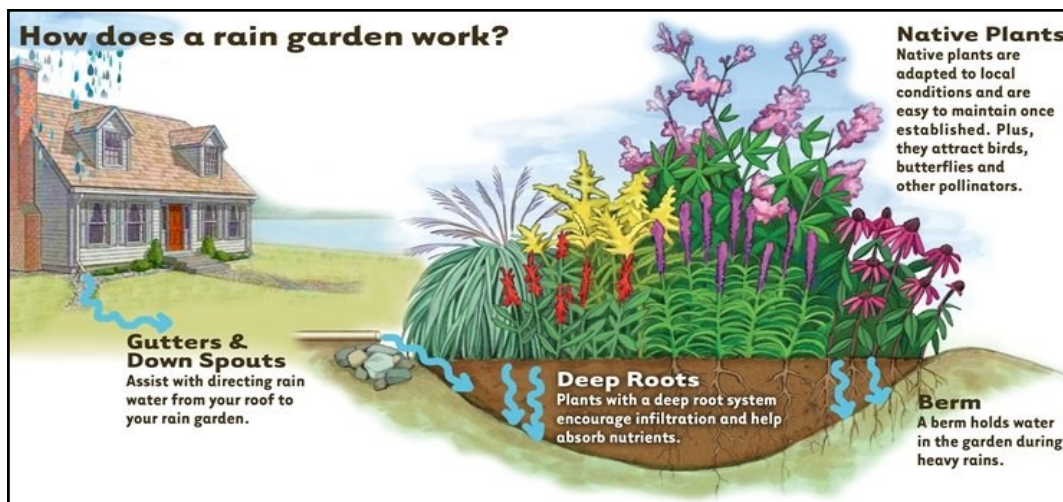
Why rain gardens?

Rain gardens not only have an aesthetic value, but they can also significantly improve water quality. Storm water runoff can transfer pet waste, oils, fertilizers and other harmful pollutants into our lakes and streams. Rain gardens can effectively reduce up to 90 percent of chemical pollutants from storm water runoff.

What are the advantages of rain gardens?

- Remove standing water in your yard
- Reduce mosquito breeding
- Reduce garden maintenance
- Increase beneficial insects that eliminate pest insects
- Recharge local groundwater
- Create habitat for birds and butterflies

Rain gardens are designed to hold water for only 24-48 hours and do not require any pumping. This short window doesn't allow for mosquito larva to complete their 7-to-12-day life cycle. Using native plants requires less maintenance as they don't need to be replanted every year and once established require watering only during extended dry periods. Rain gardens are extremely customizable from the size to the variety of plants.



Rain Barrels

What are rain barrels?

Rain gardens and barrels fundamentally serve the same purpose. They minimize chemical contaminants that run off onto our land. However, rain barrels offers different ways water can be used.

They are constructed to catch rainwater that flow through gutters from homes and buildings. Rain barrels are equipped with a faucet allowing you to utilize water for plants and other household functions.

For more information or interest in buying a rain barrel contact the East Polk SWCD.



Shoreline Restoration Program

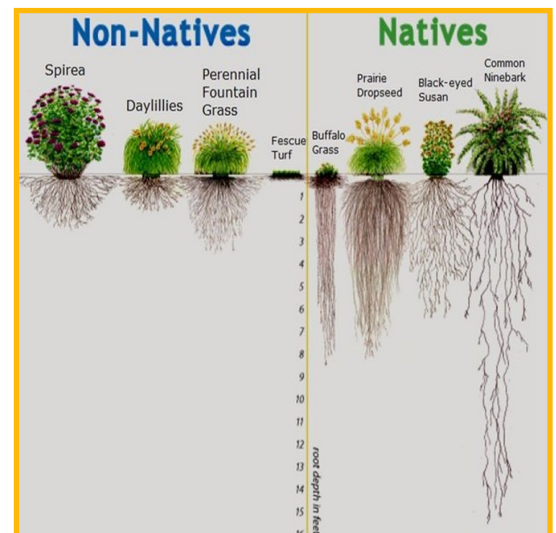
Shoreline has become a topic of interest in East Polk as more lake owners are experiencing loss of their shoreline due to erosion. Wave action, heavy rainfall, and high water can all contribute to shoreline erosion. Disturbed shorelines tend to have hard surfaces and reduced vegetation which increase runoff and erosion potential and decrease absorption by the soil.

Most turf grasses have a very shallow root system, 2-3 inches deep, and when planted right to the water's edge do very little at holding the soil in place. Small root systems will not help defend your shoreline from being washed away by nearby boats and strong currents. In fact, this will cause sand from your shoreline to wash away which can cause mid-river sand bars and clog free-flowing channels.

Landscaping with native plants can provide a natural and permanent way to control soil erosion. Shoreline restoration utilizes native vegetation which have root systems that are dense and fibrous can be as deep as 14 feet. Native vegetation protects water quality from polluted runoff and increases absorption by the soil. Conservation Minnesota even recommends that 75 percent of shorelines should accommodate native plants.

What are the advantages of shoreline restoration?

- Keeps soil and shoreline from eroding by having a stronger soil structure
- Filters runoff and catches excess nutrients from entering the lake which improves water quality
- Provides habitat for pollinators
- Increased vegetation discourages geese from entering your shoreline





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Buffer Update & Tree Program	1
Employee Updates	2
MN Geological Atlas Survey	3
Raingardens	4
Shoreline Restorations	5
Palmar Amaranth	6
Aquatic Invasive Species	7

Palmar Amaranth: A New Threat

Why is it such a threat?

Palmer amaranth is the most competitive and aggressive pigweed species. It is related to waterhemp and like waterhemp, emerges throughout the growing season, from May to August. However, Palmer amaranth is much more aggressive than waterhemp, growing 2 to 3 inches a day.

Palmer amaranth has demonstrated the ability to quickly adapt to herbicide management tactics lacking in diversification of effective sites of action, ultimately limiting control options. Palmer amaranth found in the northern states is expected to be resistant to multiple herbicides, including glyphosate (Site of Action or SOA group 9) and ALS inhibitors (SOA group 2). Timing of herbicide application is critical. Effective preemergence herbicides need to be followed by timely (plants less than 3 inches tall) and effective postemergence herbicides.

Palmer amaranth is a prolific seed producer, with a single female plant typically producing 100,000 to 500,000 seeds. Infestations have caused substantial yield losses and greatly increased weed management costs in cotton, soybeans and corn in the southern states. Once established in the northern corn and soybean states, it will likely do the same and significantly increase costs and decrease yields.

How Does it Spread?

Palmer amaranth has spread from the south through contaminated feed, including cottonseed and hay, contaminated grain and seed, and farm equipment and manure. In Iowa and Indiana, the most recent infestations were in newly seeded conservation plantings (CRP/wildlife/pollinator/and cover crop plantings) where the seed mix was contaminated. Ohio and Illinois also reported contaminated conservation seed mixes as a source of Palmer amaranth introduction.

Palmer amaranth may not persist in areas being established for conservation habitat since the Palmer amaranth should be crowded out once native, perennial vegetation is established. The concern, however, is that until the perennial plants become established, Palmer amaranth may produce enough seed to establish a seedbank in those fields and move into neighboring corn and soybean fields.

What to do if you suspected Palmer?

Do not transport it! Palmer amaranth is considered an eradicate prohibited noxious weed, meaning it cannot be legally transported even if it's just to town to get an expert's opinion. That goes for all stages of growth, whether it has produced seeds or not. Instead, take photos or bring the expert to the suspected plant.

Palmer amaranth can be tricky to identify, especially since it closely resembles other common amaranth species such as redroot pigweed and waterhemp. MDA and UMN Extension have experts that can help identify this weed and tell you how to proceed. To report a suspected Palmer amaranth plant, call the MDA Arrest the Pest line at **1-888-545-6684** or email arrest.the.pest@state.mn.us and provide the following: your location, description of where plant was found, contact information, seed source (if known), three to six photos targeting three portions of the plant: entire plant, petiole (where the leaf connects to the stem), and inflorescence (seed head). After photographing and reporting destroy the plant.



Aquatic Invasive Species: Lake Sarah Update

Chinese Mystery Snails (CMS)

The Chinese mystery snail is a snail that has been shipped over to California from Asia in the 1800's for Asian seafood markets. These different shades of brown snails grow up to two inches long and are normally referenced as being the size of a golf ball. Lake and ponds that have these snails will often find the shorelines lined with dead or empty shells. The reason the CMS (Chinese Mystery Snail) got its name is due the fact how it gives birth in the spring, to young fully developed snails suddenly and mysteriously appear. CMS was likely released into the Niagara river in the 1930's from aquaria enthusiasts who accidentally released them.

This invasive species can form dense populations and outcompete native species for food and habitat in ponds, lakes and streams. These snails can carry parasitic worms and can transmit trematodes that can kill waterfowl. There is currently no threat to human well-being with this infestation and it is believed that Lake Sarah has had them for many years as they are quite prevalent with a thick adult population this past summer. There is no evidence to support this theory but some believe that young CMS can be transferred from lake to lake by hitchhiking in bait buckets and boat bilges. What also doesn't help us is they can survive out of water for days by just tightly shutting their trap door to hold in their moisture. It's nearly impossible to get rid of mystery snails. The only way you can help is by making sure you are not transferring the snails and water out of the lake and report all new infestations in other lakes near you, for awareness is vital for preventing spreading them.



What Can You Do:

Don't Transport! – It is legal to have in your possession,
BUT it is illegal to transport to another lake!

Remove Snails – Remove the snails that wash up on shore
and dispose of them into the trash!

Spread the Word – If you find out that the lake you are
on or near you has not only Mystery Chinese Snail, but any
other type of invasive species in it. Let other people know
and remind them to be careful not to transport them to an-
other body of water.



**STOP AQUATIC
HITCHHIKERS!™**
✓ Clean ✓ Drain ✓ Dry



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