

**Clearwater Soil
and Water
Conservation
District**

Our mission is simple - to promote the wise use and improvement of our county resources, in order that future generations will inherit an economically viable county that has made wise choices in resource management.

Clearwater SWCD
312 Main Ave N, Ste 3
Bagley, MN 56621

218-694-6845
www.clearwaterswcd.org

**Natural Resources
Conservation Service**

**Helping People Help
the Land**

NRCS—Bagley Field Office
312 Main Ave N
Bagley, MN 56621

218-694-6584, ext 3
www.mn.nrcs.usda.gov

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The Clearwater Conservator

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Summer 2013

Thistle Tips for Identification and Control

**By Kathy Rasch, District
Manager, Clearwater
SWCD**

Summer is here and so are invasive weeds. This is a good time to look around and observe any plants that look like they don't belong in your gardens, pastures, fields or other areas. While some plants native to the Midwest can become pesky, of particular concern are the weeds known as non-native invasives. These are plants that originated in other areas of the world that have been introduced to the United States. They have the unfortunate ability to dominate an area and push out native plants.

Perhaps one of the most

common and well known weeds is the group of plants we collectively call thistles. 'Thistles' include several different species which have unique growth habits and requirements.

Minnesota does have native thistle species which rarely pose a problem. A first step in identification of native thistles includes checking the stem. Native species do not have spiny wings along the stem, but most non-native species do, except for the perennial Canada thistle.

The invasive thistles with spiny stems include the plumeless, bull and musk thistles. These are all biennial, meaning they have only vegetative growth the

first year, grow and bloom the second year and then the plant dies. These thistles spread only by seed.



Bull Thistle

Plumeless and bull thistles are somewhat similar in appearance with both having very spiny stems. Bull thistle generally has a larger flower about 1-1.5" wide. Plumeless thistle flowers are usually smaller at <1" wide. This is only a general guideline as individual plants will vary and

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Forest & Kim Starr, Starr Environmental, Bugwood.org

Help With Erosion Problems Available

**By Brooke Knick, Soil
Conservation
Technician, NRCS**

With spring being so late and wet this year, you might be noticing more erosion on your land. Perhaps you have a crop field that is aggressively exploding out into a ditch. Or maybe you've noticed a ditch is far too shallow to function and needs some extra cleaning. Or maybe you've just thought the stream running by your house looks brown and murky.

The Natural Resources Conservation Service (NRCS) is a federal agency that was created to help farmers and ranchers with erosion issues. Not only does erosion dump sediment into our



A side water inlet offers a man-made field drain.

waterways, but it also contaminates water with fertilizers, pesticides and harmful bacteria such as fecal coliform.

Reducing erosion improves water quality. Sediment carries phosphorus with it. Phosphorus causes green algae blooms in lakes and oceans. As algae dies and decomposes it uses up dissolved oxygen. This can lead to fish kills and stinky-

smelling bodies of water. Even though Clearwater County is the home of the Mississippi Headwaters, our runoff still contributes to the dead zone issues in the Gulf of Mexico.

(Continued on page 5)

NRCS Happenings

By Cari Roepke, District Conservationist, NRCS

Have you ever wondered what the staff at the Natural Resources Conservation Service (NRCS) office actually do?

We help put conservation on the ground. This year the Clearwater County NRCS office had a very busy Environmental Quality Incentive Program (EQIP) signup with 26 applications approved and a total of over \$270,000 going to farmers and landowners in the county to implement conservation practices.

Over 1,300 acres in the county are enrolled for herbaceous weed control on non-cropland. NRCS is providing financial assistance to livestock producers to help control weeds such as spotted knapweed and thistles on their pasture.

Two contracts for a total of 114 acres are enrolled for rotational grazing systems. This is to help livestock producers improve their grazing land by splitting up pastures into smaller paddocks and pumping water to each new paddock. Pasture is allowed to rejuvenate and cattle are getting clean cool water instead of drinking out of ponds. Calves have been shown to gain more weight faster when drinking from water tanks than from ponds.

Over 173 acres are enrolled in forage and biomass planting.

NRCS provides financial assistance to write forest management plans. Three landowners have signed up for a total of 429 acres. This plan can be a valuable tool for landowners as it gives guidance on how to manage their forestland. Plus, with this plan, landowners may be eligible for payments from the Minnesota Department of Revenue.

NRCS assisted 3 landowners on tree plantings for a total of 21.5 acres.

NRCS partnered with the US Fish and Wildlife Service (USFWS) on creating wildlife habitat for early successional species such as the golden-winged warbler and woodcock. Over 151 acres are enrolled for early successional habitat. See the "Brush Cutting for Wildlife" article below for more information.

Another successful program for the county is the Wildlife Habitat Incentive Program (WHIP). WHIP's primary focus is implementing practices for wildlife habitat. This year we had 5 contracts for over \$14,000. Almost 7 acres will be going into tree planting and nearly 64 acres will be sheared for early successional habitat.

For more information on our NRCS programs please visit <http://www.mn.nrcs.usda.gov/> or visit our office at 312 Main Avenue North in Bagley.



The USDA is an equal opportunity provider and employer.



Brush Cutting for Wildlife

By Kurt Svendsgaard, Tamarac National Wildlife Refuge, USFWS

Clearwater County landowners have some good news for improving their property for wildlife. A new partnership between the Natural Resources Conservation Service (NRCS) and the US Fish and Wildlife Service (USFWS) gives landowners the opportunity to apply for projects involving the mechanical cutting/mowing of trees/brush to create young forest habitats. These projects are for the benefit of a variety of rapidly declining birds such as woodcock and golden-winged warblers. However, there is also a benefit to resident species such as deer, ruffed grouse and wild turkeys. We're targeting non-commercial brush such as alder, willow, aspen, hazel and dogwood trees of 6" diameter or less. In each cut most mature trees with a trunk diameter greater than 6" would be left standing, so more of a mosaic cut would occur versus a clear cut.

We are currently looking at working with interested landowners for the winter of 2013/14 who own property south of Highway 2. In most cases, the NRCS/USFWS would look to secure funding for up to 100% of the associated expense. In all projects the landowner would retain all rights to his/her property such as controlling access for hunting, trapping and fishing. For more information you can also visit: youngforest.org

Let us know by email or phone if this kind of project would interest you!

Kurt Svendsgaard, Wildlife Biologist USFWS, 218-847-2641, email: Kurt_Svendsgaard@fws.gov

Cari Roepke, District Conservationist NRCS, 218-694-6584, ext. 3, email: Cari.Roepke@mn.usda.gov



Golden-winged Warbler

SWCD Education Updates:

Local Youth Win "Community Waters" Poster Contest

By Emily Lindell, Office Manager, Clearwater SWCD

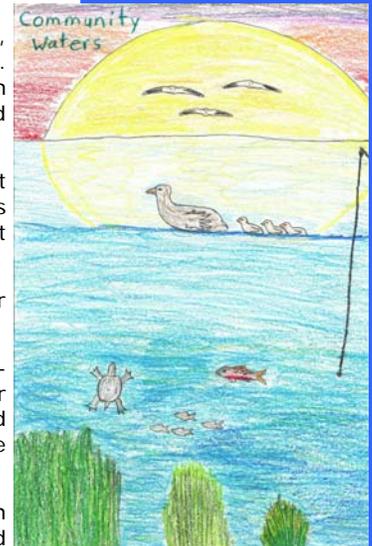
The Clearwater Soil and Water Conservation District (SWCD) congratulates Aurora Bolte, Grace E. Jones and Cori Bonik for winning the 2013 "Community Waters" poster contest. Bolte, a fifth grader from Ms. Bakke's class at Clearbrook-Gonvick Elementary School, won first place. Jones, from Mr. Loehlein's fifth grade class at Bagley Elementary School, earned second place. Bonik, a Bagley fifth grader from Mrs. Anderson's class, finished in third place.

The winning students' posters showcase conservation messages, originality and artistic merit pertaining to the protection of our shared water resources. The top three local placers advanced to judging on the area level along with other winners from SWCDs throughout north central Minnesota.

In addition, Jackie Lynn Taflin and Naomi Shamp shared an Honorable Mention for their poster. They are also students from Ms. Bakke's class at Clearbrook-Gonvick Elementary.

Clearwater SWCD invited all fifth and sixth grade teachers in the Bagley and Clearbrook-Gonvick School Districts to participate in this competition. Several teachers worked with their students on educational units about water resources and submitted many beautiful and informative posters. The commitment of these educators will prepare our youth to be the conservation leaders of tomorrow.

The winning and honorable mention posters will be displayed at the Clearwater SWCD booth at the Clearwater County Fair this summer. Please stop by to see these beautiful posters and say hello!



Second place poster by Grace Jones. All winning posters will be on display at the Clearwater County Fair.



Alex Syverson, Kara Bowman, Holden Adams and McKenzie Halvorson.

Area Students Compete in North Central Envirothon

By Emily Lindell, Office Manager, Clearwater SWCD

On a cold and blustery May 1, students from Bagley Elementary School participated in the North Central Junior Envirothon at the Beltrami County Fairgrounds. Sixth grade teacher, Matt Cage, coached team members (pictured here, L-R) Eva Pierce,

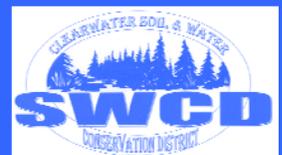
Envirothon is North America's largest high school environmental education competition. For many years area high school teams have competed in Envirothon and this year marks the second year that 6th through 8th graders have competed alongside the older students in Junior Envirothon.

Clearwater Soil and Water Conservation District along with SWCDs from Beltrami, Cass, Crow Wing, Hubbard, Itasca, Koochiching, Lake of the Woods and Wadena counties work together to put on the North Central Envirothon each year.

Envirothon participants attend sessions on aquatics, wildlife, forestry, soils and current events. Natural resource professionals use the outdoor environment to present hands-on problems and questions to the competitors. Students take quizzes and earn points at each station. High school teams also deliver a prepared presentation based on a specific conservation challenge. This year's oral presentations concerned managed grazing systems.

Financial support from local businesses is essential to Envirothon's success. Clearwater SWCD thanks Clearwater Polk Electric Coop and Garden Valley Telephone for generously donating to this year's Envirothon. In addition, we thank the Beltrami County Fair Board for accommodating the event at short notice due to inclement weather. Without this support, the North Central Envirothon would not be possible.

This year's winning teams in Junior Envirothon included St. Thomas Aquinas (International Falls), Forestview Middle School (Baxter) and Park Rapids Century Middle School. Winning high school Envirothon teams were from TrekNorth (Bemidji), Grand Rapids and Northome. At the State Envirothon competition on May 20 in Collegeville, TrekNorth took first place and advances to the North American Envirothon this August in Montana.



Harmful Species on the Move

By Nathan Nordlund, District Technician, Clearwater SWCD

Zebra mussels are tiny, so careful inspection is necessary to see them.



Amy Benson, U.S. Geological Survey, Bugwood.org

Many of us learned in our early biology classes that a diverse ecosystem is a healthy ecosystem. So what's the big deal if we add a few more plants and animals to the mix? Well as it turns out, these species do not have the same natural controls that our native plants and animals have. When introduced into new areas, these species become super competitors. Left to their own devices, AIS often become the sole, or at least one of the few species that fill a role in an ecological niche. Plants and animals are displaced, severely impacting those species that depend on the displaced species for food and/or habitat. The addition of these species ultimately reduces diversity, compromising the ecological system.

The impact of AIS reaches beyond the natural world, touching the economic and social facets of individuals, businesses and communities. Lakes and rivers choked with invasive plants restrict recreational activities. Altered fish populations limit fishing opportunities. Added maintenance and control costs strain local businesses and the municipalities impacted by invasive species.

Clearwater County currently does not have any of its bodies of water listed on the Minnesota Department of Natural Resources' Designated Infested Waters list. However many of the surrounding counties have become well acquainted with the effects of these species. Becker and Cass Counties provide this example, both having waters infested with faucet snails. Significant scaup and other waterfowl die-offs have been attributed to the presence of faucet snails on Lake Winnibigoshish in Cass County. Union Lake in Polk County is infested with Eurasian watermilfoil. Becker, Cass and Crow Wing Counties all harbor the prolific zebra mussel. These are a few of the examples of AIS surrounding our borders.



Graves Lovell, Alabama Department of Conservation and Natural Resources, Bugwood.org

Eurasian Watermilfoil

With aquatic invasive species knocking at our door, it is important that we are aware of them and our role in their dispersal. Slowing the spread of AIS is something that each of us can easily do. Simply taking the time to clean and drain your boat or other water-related equipment before and after leaving a body of water will significantly reduce the likelihood of transporting AIS to a new location. The Department of Natural Resources has established new laws regarding the transportation of aquatic plants, water and water-related equipment. Take the time to familiarize yourself with these laws and follow them to help prevent the spread of AIS into our county.

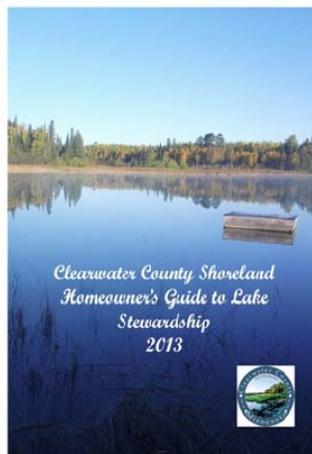
For more information on aquatic invasive species, check out the Minnesota DNR website at:

www.dnr.state.mn.us/invasives/index_aquatic.html



New Shoreland Guide—Hot Off the Presses!

By Emily Lindell, Office Manager, Clearwater SWCD



The Clearwater Soil and Water Conservation District and the Clearwater County Office of Environmental Services announce the release of the *Clearwater County Shoreland Homeowner's Guide to Lake Stewardship*, 2013 edition.

Clearwater SWCD won a Clean Water Fund grant in 2012 to support the revision, publication and distribution of the out-of-print shoreland guide. Clearwater SWCD and Clearwater County Environmental Services staff collaborated to make this important resource available once more to area residents.

The guide contains tips to protect fishing, swimming, recreation, shoreline and water quality on area lakes. Updated information describes how local waterbodies are under threat from aquatic invasive species and how landowners can prevent such infestations.

(Continued on page 5)

(Shoreland Guide, continued from page 4)

The new *Shoreland Homeowner's Guide to Lake Stewardship* is now available at the Environmental Services and Clearwater SWCD offices. It's also easy to access online at <http://www.clearwaterswcd.org/clean.water.fund.html>

If you are a landowner or renter along a lake, river, stream or wetland, this guide is for you. Guides are also available for lake association members, area realtors and other interested community members. Please call Clearwater SWCD at 218-694-6845 with any questions or to have a guide mailed to you.

Clean Water Fund grants come from the Clean Water, Land and Legacy Amendment approved by Minnesota voters in 2008.



The new *Shoreland Guide* is available at Environmental Services and Clearwater SWCD offices. It's also easy to access online at:

www.clearwaterswcd.org/clean.water.fund.html

(Erosion, continued from page 1)

Reducing erosion also enriches wildlife habitat. Some animals such as the endangered creek heelsplitter mussel will suffocate, starve and die if their filter feeders are clogged with sediment. Due to water quality issues, 25 of our 48 Minnesota native mussel species are now listed as endangered or threatened.

Reducing erosion even makes crop land more profitable to farmers. Topsoil, the most nutrient rich layer of soil, is where plants concentrate most of their roots. Intensive agricultural cropping has high nutrient demands and is very taxing on the soil. As topsoil is lost over time, more fertilizer needs be used to insure a successful crop. The United

expertise to help people fix their erosion problems. There are many practices designed to slow or halt the erosion of soil. Side water inlets, grassed waterways and cover crops are a few of those practices.

Side water inlets are culverts strategically placed in hillsides which drain water from a field into a ditch. Before the installation of a side water inlet, a field edge could be collapsing into the ditch because the soil is too light to handle the weight as rain water pools. A side water inlet gives a solid structure where water can drain from a field instead of bursting out over the top of a ditch.



Tillage radishes break up compaction, provide late fall forage for cattle and protect soil from erosion.

existing field water courses such as in the valley of two hills.

Cover crops keep a living mulch on the soil after the cash crops are harvested off. Cover crops anchor loose soil, contribute more organic matter, can be used to in the place of fertilizers, provide feed for livestock, reduce compaction and even help keep more water in the soil profile.

If you are interested in any of these practices or have an erosion problem that you'd like to see fixed, please visit the NRCS at our office: 312 Main Avenue N in Bagley. Or call 218-694-6584 ext. 3.



Grassed waterways help keep the soil in place where water naturally flows.

States loses almost three tons of topsoil per acre per year. This is a great ecological concern because one inch of topsoil can take 500 years to form naturally.

The NRCS has financial assistance and technical

A grassed waterway is a stream channel filled with grasses. Grassed waterways are designed to slow water down as it runs off a field. The grasses filter the soil and catch many of the heavier sediments. As a grassed waterway slows water's momentum, more soil settles out of the water and remains on the field. Grassed waterways are placed in



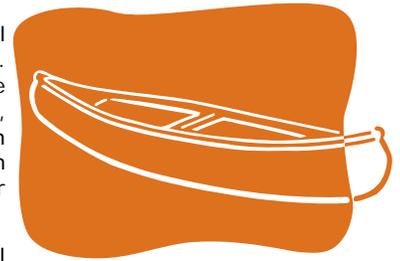
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Calling All River Rats!

By Les Torgerson, Red Lake Watershed District

We have the opportunity to develop a great recreational resource in our own backyard: the Clearwater River. Clearwater and Beltrami County officials have expressed some interest in developing a canoe route on the Clearwater River, but we need to enlist the help of volunteers like you who can guide the development of this route. If you have an interest in canoeing, kayaking or the outdoors in general, we need your help to develop this opportunity to its full potential.



Minnesotans are blessed with a myriad of outdoor recreational opportunities throughout the state, but we often forget that some of the greatest places to explore are only minutes away. A float down the Clearwater River will bring you through some of the most pristine portions of our area. The Clearwater meanders through miles of beautiful North Country with many changing personalities. Landscapes vary from high country with giant pine trees to miles of wetlands intertwined with wild rice beds. Abundant wildlife including bears, wolves, bald eagles, deer, waterfowl and songbirds, to name a few, can be observed on a quiet float down this river. It is a naturalist's dream.

The challenge with the Clearwater River is that much of the river is very difficult, if not dangerous, to traverse. Deadfalls and log jams create an obstacle course of sorts, often forcing canoeists or kayakers into precarious situations. We intend to have just enough of the snags and log jams cleared to make the trip down the river a safe adventure, while preserving the habitat along the water's course. We have been in contact with the DNR to obtain permitting if necessary and to listen to their recommendations on how to proceed. Our ultimate goal is to ask for designation of part of the river as an official Canoe Route.

Maintenance of the river channel is one of the challenges to be addressed. Another is establishing access points along the river. The exact stretch of river to be developed is yet to be determined, but several good starting points are under consideration. There is already an established entry point along County Road 24 upstream of Clearwater Lake. Also private landowners immediately below the Clearwater Dam have given their consent to launch vessels from that location. Further downstream a landowner has expressed interest in establishing an access point before the channelized section of the river as well. Abundant county-owned land along the river may also provide good candidate locations for parking and access point development.

The Clearwater River is a beautiful resource in our area needing your help to develop it to its full potential. Your input on this canoe route would be much appreciated. Interested persons should contact Les Torgerson, Clearwater County Manager of the Red Lake Watershed District at lestorgerson@yahoo.com or by phone at 218-689-5533.

Learn more about the Red Lake Watershed District at:

www.redlakewatershed.org

When using County dumpsters remember:

- Dispose of only household garbage
- Make sure everything gets inside the containers
- Shut all lids
- Pick up a little if there's litter around

Talking Trash About Dumpsters

By Dan Hecht, Clearwater County Environmental Services



With spring cleaning season upon us it's a good time for a reminder about proper use of the County's dumpster sites for rural garbage collection. Right or wrong, this is the way Clearwater County has chosen to serve its residents in rural areas for collection of garbage, and we need everybody to work together and respect the system to make it work.

Did you know that rural dumpster sites are unique to Clearwater County? There are 15 sites, one in almost every township, so there is a disposal site within 6 to 8 miles of most homes. For those of you who have family or friends in Polk, Beltrami, Hubbard and Becker counties, ask around. Ask how they dispose of their trash and ask how much they pay for the service they have, how far they have to travel if they self-haul to a collection facility. Or if they have curbside collection, ask what the fee is for this service. For those of you who are not aware, this bit of research will give you an idea what the alternatives are for Clearwater County, and a reality check.

You and I pay an annual solid waste service fee on our taxes. The fee is \$90 for single family residences, and for that we get garbage collection at the dumpster sites, garbage disposal at the incinerator in Fosston, use of the services at the demolition landfill/transfer station and use of the recycling program. Curbside collection for trash is more convenient if you choose to pay extra

(Continued on page 7)

(Trash Talk, continued from page 6)

and it is available to all of us through local haulers, but at least in Clearwater County we have the alternative of using the dumpster sites.

As we all know, the problem with the dumpster sites is the mess. At one time, Beltrami County provided a similar service but discontinued it years ago because they simply couldn't keep up with the inevitable mess caused by people, bears and wind. In Clearwater County we are attempting to maintain the service as residents have told us directly that's what they want. The County continues to spend thousands of dollars on hired labor to clean up the mess people make, erect fences to keep windblown garbage in, install electric fences to keep bears out and generally improve the appearance of these facilities. Many of the sites are located at our Town Halls; there is a sense of pride in keeping these community gathering places in good order. We need all of you to help by disposing of only household garbage at the sites, making sure everything gets inside the containers, shutting the lids and picking up a little if there's litter around.

Clearwater County is committed to keeping its solid waste system working at a reasonable cost and in doing so we want your help and your input. If you have questions or comments about solid waste issues, please call or stop by Environmental Services, 218-694-6183, located in the Courthouse.

(Thistles, continued from page 1)

growing conditions can also influence flower size.

The most reliable way to differentiate the two may be to look at the flower head. When looking closely at the white fuzz (pappus) on the seeds, bull thistle will look like a tiny feather or plume, while

in plumeless thistle the pappus will appear as a single unbranched thread, hence the name "plumeless."

Musk thistle differs from the two previous thistles by its large nodding flower head and the fact that the stem is smooth only above the top leaves.

To control biennial thistles, cut the thistle to prevent blooming. This kills the plant and prevents seed development. This or any control measure may have to be repeated for several years until the seed bank is depleted of viable seed. Establishing other desirable vegetation cover on the site to cover up the bare soil will also help to prevent new seedlings from becoming established.



Dan Tanaglia, MissouriPlants.com, Bugwood.org

Musk thistle stem with spines

In contrast to these biennial thistle species, the invasive Canada thistle is a perennial, colony-forming thistle that spreads by underground rhizomes. Canada thistle can be more difficult to control through mowing as they have a pretty deep and extensive root system. Mowing can be useful to limit flowering and seed production. Applying herbicide in the fall might be the most effective application time as the plant is drawing nutrients deep into the root to build up energy reserves. The herbicide will also get carried

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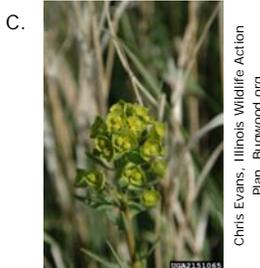
For more information or questions on identification and control of invasive plants, contact:

- Clearwater SWCD, 694-6845
 - Clearwater County Environmental Services, 694-6183
- OR
- Natural Resources Conservation Service, 694-6584, ext 3

Invasive Species Match Up

1. Spotted Knapweed _____
2. Tansy _____
3. Glossy Buckthorn _____
4. Leafy Spurge _____
5. Purple Loosestrife _____

Test Your Knowledge! Review the pictures below and write the correct letter next to the descriptions on the left. Answers at the bottom.



Answers: 1. E; 2. D; 3. B; 4. C; 5. A





**Visit Clearwater SWCD
At The Clearwater
County Fair!**

**Stop by to buy a plat book
and learn more about:**

- erosion challenges,
- reducing runoff,
- shoreline issues and so much more!

**Want to receive future
newsletters via email?
Call us (218-694-6845)
to get added to our
electronic mailing list!**



Canada Thistle

(Continued from page 7)

into the root system this way. Plan to follow up the next year with mowing or additional treatment as needed.

Proper identification of weeds is critical to selecting an effective control program. The

state or county noxious weed list requires control of some weeds.

For more information on identification or control of invasive plants such as these, please contact Clearwater

SWCD, Clearwater County Environmental Services or the Natural Resources Conservation Service office in Bagley.



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