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## Landowner Meeting this Winter — Plan to Attend!

The Bee/Duck Creek Watershed Committee, along with the Hiawatha Valley Resource Conservation & Development Council and the Allamakee County SWCD, will be working together to coordinate a meeting among Iowa and Minnesota landowners. The meeting is tentatively scheduled for January or February 2013, and will likely

be held in Spring Grove, Minnesota.

Agenda items will include funding sources, BMP coordination and implementation, landowner testimonials, and future phases of the project.

All landowners in the watershed will be receiving more information

about the meeting later this year. If you have any suggestions for agenda items, please call our office at 563-568-2246 ext. 3 or email Michelle at

Michelle.Elliott@ia.nacdnet.net.

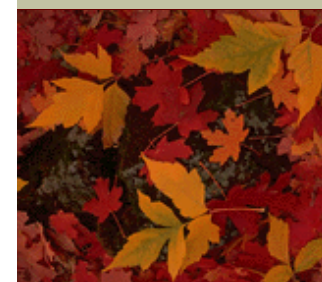
Thank you!

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October 2012



ALLAMAKEE COUNTY SOIL & WATER CONSERVATION DISTRICT

# Waterloo Creek Watershed

## 2013 Marks Start of Watershed Project

In August 2012, the Watershed Improvement Review Board (WIRB) awarded a grant to the Allamakee County SWCD for a watershed project in 2013-2014.

Although the implementation of best management practices (BMPs) are only eligible to Iowa landowners through this grant, other cost-share may be available to Minnesota landowners.

The goals for the first phase of this project (2013-2014) are to

- 1) Expand upon current partnering and develop a formal working relationship amid technical staff in both states to allow consistent, focused BMP implementation,
- 2) Identify specific locations for BMP implementation, and
- 3) Reduce sediment loading to Waterloo Creek to improve aquatic habitat and decrease bacteria delivery.

Goal #3 will be reached through the implementation of terraces and grade stabilization structures (ponds). These practices are cost-effective, and also represent the practices which landowners are most interested in applying to their property based on individual meetings.

Future phases of this project will build upon this initial phase and focus on flood management, stream bank stability, pasture management and agricultural waste structures.

## 2012 Sampling Season Completed

This year's sampling season was completed in mid-October. Fourteen biweekly events were sampled, as well as three rainfall events (>1" rainfall in 24 hours).

This year's drought conditions will provide valuable

data when compared to the previous two sampling seasons, one of which was a wetter than normal year.

Three consecutive years of sampling data will provide a thorough overview of existing water

quality in the watershed's streams as this project begins.

Future routine sampling, dependent on grant funding, will show progress and identify areas needing improvement.



Visit us online at [allamakeeswcd.org](http://allamakeeswcd.org)

## Protecting Outstanding Iowa Waters

In addition to being a 'high-quality water' resource, Waterloo Creek and Duck Creek have both been designated as an 'Outstanding Iowa Water' by the Iowa DNR. Thirty-three streams and three lakes in Iowa are included on this list.

These waters are outstanding state resources with exceptional recreational or ecological significance. Their current level of water quality must be maintained and protected, and not allowed to decline. This system's habitat, hydrologic stability, and ecological integrity are the reasons it was named to this list.

Protection is the primary goal of this project, which is especially innovative because it fo-

cuses on protecting a high-quality water resource from future degradation. Typically projects focus on the management of a watershed. The watershed protection plan that is being written for this project will be the first such plan written in either state.



A fisherman lands a trout in Waterloo Creek. Photo source: iaenvironment.org  
Fish species in Waterloo Creek include brook, self-sustained brown, and rainbow trout. According to Bill Kalishek, Iowa DNR Fisheries Biologist, Waterloo Creek is the 4th most popular trout stream in Iowa with more than 24,000 trips annually.

## Allamakee SWCD's Conservation Lease Project

The Allamakee County SWCD is pleased to announce that the McKnight Foundation has accepted our application for a Conservation Lease Project. The District's Conservation Lease Specialist, Sara Berges, will work with interested landowners, and hopefully operators as well, to create a lease addendum that specifies conservation practices to be implemented on specific fields. It will look similar to a conservation plan but will be more detailed and will include such topics as specific crop rotations, required conservation practices, and nutrient man-

agement. It can also include stipulations for non-compliance, shared costs for conservation practice installation, and residue management, as well as many other topics. The goal would be to have the landlord and renter work with the conservation lease specialist to determine their priorities for the farm and work together to come to an agreement about how to address those priorities.

Keep an eye on the Waukon Standard and our website for announcements about public informational meetings about

the project and resulting lease addendums. We hope to hold a few meetings this fall. We are working alongside the Drake Agricultural Law Center on this project to ensure that the lease addendums meet legal requirements and to build on the past work they have done, as can be seen on their website at sustainablefarm-lease.org.

If you would like more information on this project or may be interested, please stop by the office, call us at 563-568-2246 ext. 3, or email Sara at Sara.Berges@ia.nacdn.net.

## Turbidity & E. coli Data Summary

As was outlined in the April 2012 newsletter, the primary threats to the watershed are sediment and E.coli. Also in that newsletter, an EPA limit of 3.38 was referenced for the turbidity (measurement of suspended material, including sediment, in water) data. Further review has determined that value was not representative for these streams, and Iowa has no turbidity limit. According to the Minnesota Pollution Control Agency, the chronic turbidity standard for a cold water fishery is 10 NTU; this value will be used as a reference for Iowa as well. EPA's limit for E. coli is 235 CFU/100 ml. The 2010-2012 turbidity and E. coli data are summarized in the table below, as percentages of times the standard limits were exceeded. Rainfall events were not sampled in 2011.

Year	Turbidity Limit Exceeded (Biweekly – Rainfall Event)	E. coli Limit Exceeded (Biweekly – Rainfall Event)
2010	2% – 69%	49% – 94%
2011	8% – NA	42% – NA
2012	2% – 5%	22% – 90%

## Water Temperature Monitoring

Water temperature is being monitored because of Bee, Duck, and Waterloo Creeks' importance as a trout fishery. Healthy cold water streams are able to support trout and other cold water organisms. Groundwater discharges help maintain cool water temperatures in the summer months.

Temperatures have been monitored with thermographs in Bee, Duck, and Waterloo Creeks for the past three years. A thermograph is a device that records temperature over a fixed period of time. In this system, measurements were taken every hour over a period of several months. The thermographs are installed in the spring and removed in the fall. This year, they were installed in April and removed in October.

According to the Iowa DNR Fisheries Bureau, the optimum temperature range for rainbow and brown trout growth and development is 59°F to 64°F, with survival up to 75°F. Brook trout, however, must have temperatures between 55°F and 60°F.

Recording the fluctuations in the water temperatures will help to identify the peak times of stress the streams undergo during the summer months.

Sedimentation can increase water temperatures by increasing solar radiation absorbed by the stream, reduce dissolved oxygen, and damage fish gills.

Reducing sediment loads entering the streams is an important way to help maintain optimum temperatures.

After this year's results are downloaded, data from all three years will be compiled and examined for trends.



This thermograph was recently removed from Bee Creek in Minnesota, one of five sites in the watershed where the devices were installed this year. The thermographs were attached to heavy stakes, which were pounded into the streambed.