

March 20, 2018

DOUGLAS COUNTY LAND CONSERVATION COMMITTEE
Tuesday, March 27, 2018, 10:00 a.m., Courthouse, Room 207C,
1313 Belknap Street, Superior, Wisconsin

Please call the Chair or County Clerk's Office (715-395-1569) if you are unable to attend.

MEMBERS: Sue Hendrickson, Chair Mary Lou Bergman, Vice Chair
 Terry White Larry Luostari
 Amy Colby, FSA Kathryn McKenzie

A G E N D A

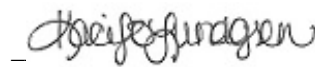
(Committee to maintain a two-hour meeting limit *or* take action to continue meeting beyond that time.)

1. Roll call.
2. Approval of minutes from the January 16, 2018, meeting (attached).
3. Presentations:
 - a. Northern Pike spawning habitat restoration potential, Howards Pocket – Steve LaValley;
 - b. Chronic Wasting Disease – Alan Horvath; and
 - c. Balsam Creek Fish Passage projects – Cameron Bertsch.
4. Action items:
 - a. Wildlife Damage and Abatement Program (to be distributed):
 1. Report; and
 2. Approval of contracts.
 - b. Capital project funding request – Groundwater Program (attached);
 - c. Approval of UW-Superior response to grant project refund (attached).
5. Informational items:
 - a. Updates:
 1. Groundwater Program;
 2. In-Lieu Fee Mitigation Reserve Program; and
 3. Grants.
 - b. Agency reports; and
 - c. Staff report.
6. Future agenda items.
7. Adjournment.

cc: Ann Doucette Christine Ostern Steve Rannenberg
Cameron Bertsch Sue Sandvick Douglas County Website
County Board Supervisors Gary Haughn Shelley Nelson (Telegram)
Amy Eliot Dave Schultz Coreen Fallat
Jane Anklam Sue O'Halloran Valerie Johnson
Alan Horvath Steve LaValley

NOTE: Attachments to agenda are available in County Clerk's Office for review or copying. Action may be taken on any item listed on the agenda. The County of Douglas complies with the Americans with Disabilities Act of 1990. If you are in need of an accommodation to participate in the public meeting process, please contact the Douglas County Clerk's Office at (715) 395-1341 by 4:00 p.m. on the day prior to the scheduled meeting. Douglas County will attempt to accommodate any request, depending on the amount of notice we receive.

Posted: Courthouse, Government Center, Telegram Copied



Name

3-20-18

Date

DOUGLAS COUNTY LAND CONSERVATION COMMITTEE
Tuesday, January 16, 2018, 10:00 a.m., Courthouse, Room 207C,
1313 Belknap Street, Superior, Wisconsin

Meeting called to order by Chair Sue Hendrickson.

ROLL CALL: Present – Sue Hendrickson, Mary Lou Bergman, Terry White, Kathryn McKenzie, Larry Luostari. Absent – Amy Colby. Others present – Christine Ostern, James Soyring, Mike Gardner, Ray Dezek, Gary Haughn, Mark Liebaert, Dave Schulz, Kaci Lundgren, Committee Clerk.

APPROVAL OF MINUTES: Motion by McKenzie, second Luostari, to approve minutes from the October 12, 2017, meeting. Motion carried.

ACTION ITEMS:

Wildlife Damage and Abatement Program - Report: Distributed; 4 deer were donated for meat processing in 2017.

Approval of Contracts: 2018 contract to provide bear relocation services cost is determined by the previous 5-year damage average; 2018 cost is \$3,850.

ACTION: Motion by White, second Bergman, to approve contract as presented. Motion carried.

2018 Wisconsin Land+Water Conservation Association Membership Dues and Donations: Yearly dues include donation options of \$55 to Envirothon which allows high school students to compete involving conservation efforts and \$50 to Great Lakes Committee which provides more back in grants throughout the year.

ACTION: Motion by Bergman, second McKenzie, to approve payment of 2018 dues to include \$55 Envirothon and \$50 Great Lakes Committee donation options for a total of \$1,580. Motion carried.

Healthy Watersheds Consortium Grant: Opportunities to update Land and Water Conservation Plan, utilize LiDAR data in additional areas, analyze stream functions, and develop new and continue existing partnerships available if awarded grant. There is a 25% match requirement which can be achieved by in-kind monies.

ACTION: Motion by Luostari, second Bergman, to approve grant application. Motion carried.

Department of Agriculture, Trade and Consumer Protection Livestock Siting Rule Changes – Approval to Comment: Article regarding changes distributed. Revision began in 2016; information and public comment opportunity lacking since initial introduction. No current updates available.

ACTION: Motion by White, second McKenzie, to allow Christine Ostern to draft comment in favor of stricter livestock siting rules and submit with review by Mark Liebaert and Sue Hendrickson. Motion carried.

INFORMATIONAL ITEMS:

Great Lakes Restoration Conference Report by Terry White: Included with agenda. No county funds used to attend.

2018 Wisconsin Land+Water Conference: 2 of the 3 resolutions to be reviewed were submitted by Douglas County. Open to committee members to attend.

Updates – Groundwater Program: 500 flyers sent out to strategically picked residents; first 100 to respond will participate.

DNR Grant LPT-453-14: Chart of funds utilized distributed. Due to lack of approval for an extension, project was not completed. DNR denied full reimbursement of expenses totaling \$62,832.99 deeming them ineligible. County in current pursuit of refund from UW-Superior in the amount of \$51,558.93, which was provided in the understanding that the DNR would reimburse.

Lake Superior Basin and Nemadji Watershed Projects: Open houses were well attended. Many landowners utilized the National Resources Conservation Service (NRCS) cost-share programs recommended.

Agency Reports: NRCS report distributed. 4 projects were accepted in Douglas County for 2018. Office is now combined with Spooner for a 7-county effort.

FUTURE AGENDA ITEMS: Cost-share approval; draft in-lieu of fee update; chronic wasting disease.

ADJOURNMENT: Motion by McKenzie, second Bergman, to adjourn. Motion carried. Meeting adjourned at 11:50 a.m.

Submitted by,

Kaci Lundgren, Committee Clerk



2018 Capital Project Request: Douglas County Groundwater Program

PROJECT DESCRIPTION

We request funding to continue the new Douglas County Groundwater Program by addressing these four main components: 1) well sampling program, 2) education program, 3) GIS database, and 4) well abandonment program. Capital project funding will be used largely for subsidizing well sampling costs and for some printing/ mailing expenses for the education component.

The well sampling program will continue to provide a better understanding of baseline groundwater quality conditions in areas of the county that are susceptible to groundwater contamination. A voluntary well sampling program will be designed to strategically target well owners for subsidized sampling. We are proposing to sample an additional 100 wells. Well owners will be charged a subsidized fee of \$20 for participation in the well sampling component. Capital project funding will cover the remaining \$80 for each participating well sample. Educational events will be held to encourage participation and also to summarize and disseminate results. Data collected will be added to the existing dataset in order to record baseline groundwater quality and add to our understanding of groundwater resources in the county. The new Douglas County Groundwater Program currently has 100 data points from the initial 2017-2018 effort.

COSTS AND OTHER FUNDING SOURCES

The existing program is funded through a Wisconsin Coastal Management Program grant. Capital project funding is being sought to continue parts of the existing program.

There are four main components to this project:

- 1) Well sampling
- 2) Education (printing/ mailing expenses)
- 3) GIS database
- 4) Well abandonment

Project Component	Capital Funding Cost	Other Funding/Source	Total Cost
Well sampling	\$8,000	\$2,000/well owner	\$10,000
Education	\$2,000	In-kind	\$2,000
GIS database	\$0	In-kind	NA
Well abandonments* <i>*estimate based on 5 well abandonments at \$800/abandonment</i>	\$0	\$2,800*/DATCP grant \$1,200*/well owner	\$4,000*
Total	\$10,000	\$6,000	\$16,000

Capital funding is being sought to subsidize well sampling costs and for some printing/ mailing expenses for the education component. The GIS database will be operated internally with existing staff and the well abandonments will be completed with cost-sharing for landowners from a Department of Agriculture, Trade & Consumer Protection grant. Well owners will contribute 20% of the well sampling costs and 30% of the well abandonment cost.

Capital Project Cost Calculation:

Subsidize 100 well water samples at \$80 each for a total of \$8,000
 (total cost of sample is \$100, well owner pays \$20)
 Printing and mailing expenses of \$2,000

Total capital project funding request: \$10,000

Rationale for Sample Subsidy Rate

The sampling cost for the expanded water sample analysis (bacteria, in-organics, and metals) is currently \$100 per sample. The current well sampling program operates with \$20 of the \$100 total sampling cost contributed by the well owner. This rate was chosen for two reasons: 1) it is similar to what other counties charge, and 2) it is the same as the \$20 fee charged by Douglas County for only a bacteria test. In areas where we want to collect information from the expanded test, we would not want to deter participation in the expanded test by charging more than the bacteria-only test.

PROJECT TIMELINE

August 2018:	Plan sampling effort, mailing, and first educational event
September 2018:	Mail letters, finalize planning for first educational event
October 2018:	hold first educational event, collect samples, start processing samples, plan second educational event, collect well abandonment participants
November 2018:	hold second educational event, enter data into database
Nov – Dec 2018:	plan well abandonments, prepare cost share agreements with participants

EXPLANATION OF PROJECT NECESSITY

Land and Water Resource Management Plan

The *Douglas County Land and Water Resource Management Plan* was developed to meet requirements in Chapter 92 of the Wisconsin Statutes. The intent of the plan is to foster local water quality planning and increase public participation in natural resource management. The plans are intended to provide counties, through their Land Conservation Committees, the tools, flexibility, and funding to be able to address both statewide goals as well as priorities identified at the local level. The goals, objectives, and actions contained in the Douglas County plan were established in 2009 by a workgroup of volunteer citizens from throughout the county and will guide the work of the Land Conservation Committee and their staff through 2020. The Land and Water Resource Management Plan contains four goals; one of these goals addresses groundwater. Here is the groundwater goal from the plan:

Goal 2. Protect and understand groundwater quality to supply clean water for drinking and recharging surface waters and wetlands.

Objectives

- A. A baseline inventory of drinking water quality is available in Douglas County.
- B. Potential impacts to groundwater are minimized (road salt, herbicides, etc.).
- C. Private wells are properly sealed and closed when not in use.
- D. Manure storage systems follow standards to protect groundwater.

Activities

1. Develop and implement a home well sampling program – at a minimum test for nitrates and bacteria. Record the results in a data base and map in a Geographic Information System (GIS).
2. Provide cost sharing and technical assistance for well closures.
3. Provide technical assistance in the planning, design, and construction or closure of manure storage facilities.

Recommendation from the Large Livestock Facilities Study Group

The Douglas County Large Livestock Facilities Study Group was formed in 2016 to address the issues of regulating large livestock facilities, i.e. Concentrated Animal Feeding Operations (CAFOs) in Douglas County. The study group recommended that Douglas County should gain a better understanding of the baseline quality of our surface and groundwater resources in order to make informed decisions about locating CAFOs in Douglas County. The study group recommended that priority be given for well testing through the groundwater program in areas where CAFOs would potentially be located in the future.

Groundwater Susceptibility in Douglas County

Douglas County is relatively large and mostly rural. Residents in Douglas County typically rely on groundwater as a drinking water source and the Land & Water Conservation Department is charged with protecting groundwater from contamination. Groundwater contamination most often comes from surface sources and reaches the water table by infiltration through surficial soils and bedrock.

If groundwater becomes contaminated, it is expensive and sometimes not feasible to remediate. Contaminants can travel long distances unnoticed and can persist indefinitely.

The susceptibility of an area to groundwater contamination depends on depth to groundwater, depth to bedrock, type of bedrock, and soil and surficial deposit characteristics. In most of Douglas County, depth to groundwater is less than 50 feet. Areas with shallow bedrock are also considered susceptible to contamination, and the depth to bedrock in Douglas County is generally from 0 to 50 feet. The most important geologic characteristic in determining areas susceptibility to groundwater contamination, except for areas with shallow depth to bedrock, is the characteristics of surficial deposits. Clay deposits have a low permeability, and act as a barrier to groundwater infiltration. Sand and gravel deposits however, have a higher permeability and are more susceptible to groundwater contamination. Northern Douglas County and the Lake Superior shoreline consists of low permeability clayey surficial soils with inclusions of permeable sand lenses, while central and southern Douglas County have more susceptible moderately to highly permeable soils. Surficial soils range from clayey deposits near the Lake Superior shoreline to more permeable sand and gravel deposits in central and southern Douglas County. Even in areas that have low susceptibility to contamination from infiltration, contamination can occur through wells, which provide a direct path for contaminants to reach the water table. In the northern part of the county, wells are generally deep and may be under artesian pressure, flowing at the surface. In the St. Croix Basin in southern Douglas County, where more permeable bedrock and surficial soils are present, wells tend to be shallower and more susceptible to pollutants. Landowners may be unaware of the importance of properly sealing wells or lack the resources for proper well abandonment.

Groundwater is also important ecologically because it supplies and recharges lakes and streams that sustain fisheries within the county. There are 431 lakes in Douglas County; many of them are less than 10 acres. Watersheds within the Lake Superior basin include the St. Louis and lower Nemadji Rivers, Black and Upper Nemadji Rivers, Amnicon and Middle Rivers, and the Bois Brule, as well as numerous trout streams. All but the St. Louis and Lower Nemadji Rivers are ranked by the DNR as having a medium susceptibility to groundwater contamination and/or nitrate concentrations that in some instances exceeded drinking water standards (Douglas County LWRM Plan).

Groundwater can be affected by a variety of land use changes and pollution sources such as non-point runoff from the application of pesticide, herbicide, and fertilizer, pollution from animal waste, storage of road salt, urban runoff, failing septic systems, and contamination from leaking underground storage tanks. Natural changes such as precipitation, droughts, and natural mineral and chemical precipitation can also change water quality. The most widespread groundwater contamination in Wisconsin is nitrate-nitrogen, with the problem increasing in severity and extent. Agriculture is a source of nitrate and is a significant land use in Douglas County.

Problems

Data on the quality of groundwater in Douglas County is limited; see Figure 1 below which shows the known well data prior to the initial 2017-2018 Groundwater Program. The lack of data precludes the county from identifying areas with problematic groundwater quality and from assessing changes resulting from contamination and/or land use changes. It also hinders public education about groundwater quality and the importance of protecting groundwater.

A county-scale assessment of groundwater quality will establish baseline conditions. The assessment will help the county develop and promote groundwater management best practices. For example, having baseline groundwater quality data and more public awareness of groundwater quality would help decision makers assess the need for wellhead protection ordinances. In addition, nutrient run-off from livestock facilities is a concern. Douglas County currently does not have any concentrated animal feeding operations (CAFOs), however a susceptibility map and baseline groundwater quality data would allow the county to better understand the implications a large livestock facility would have on a particular area and what regulation may be necessary.

Additionally, protection of groundwater quality will protect county surface water resources. Lakes and streams that interact closely with, and in some cases are directly connected to, groundwater are dependent upon groundwater for maintenance of good water quality and sustaining cold water temperature regimes.

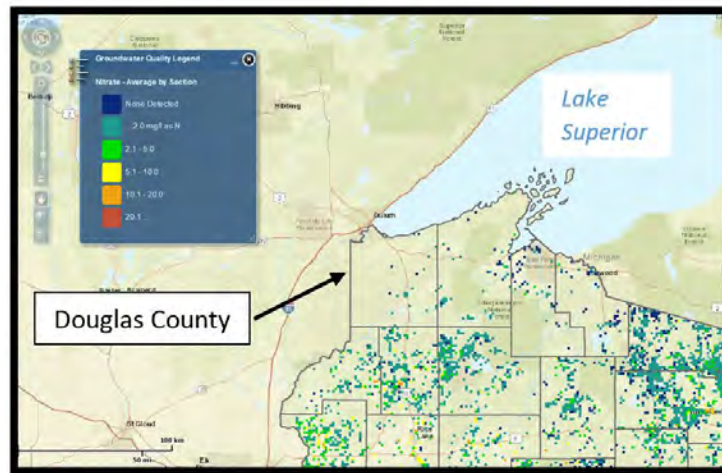


Figure 1. The WI Well Water Quality Viewer (hosted by UW-Stevens Point) indicates that little is known about groundwater quality in Douglas County (2016).

Well owners often know little about their own groundwater quality. It is important that decision makers and land owners are aware of conditions affecting the quality of their drinking water. Groundwater susceptibility maps, the well education and sampling program, and the well abandonment program will allow the county to specifically target ecologically important and susceptible areas for well testing and to promote public education, involvement, and discussion. Well owners have limited resources for well abandonment for groundwater protection. The well abandonment initiative will promote education on the importance well abandonment, and will target the abandonment of five wells though cost sharing and technical assistance.

Results from initial 2017-2018 Groundwater Program effort

Participation in the initial well sampling effort was limited to 100 well samples. These results, combined with the small number of already existing data points, are still a very small sample size given the size of the county and therefore yield an incomplete picture. There are fairly large areas of the county with no data – see Figure 2 below. Results from the initial Groundwater Program effort show that we have some issues apparent even from the limited initial assessment, for example some elevated metals and bacteria. More data is necessary to gain a better understanding county-wide and to further investigate areas with elevated parameters.

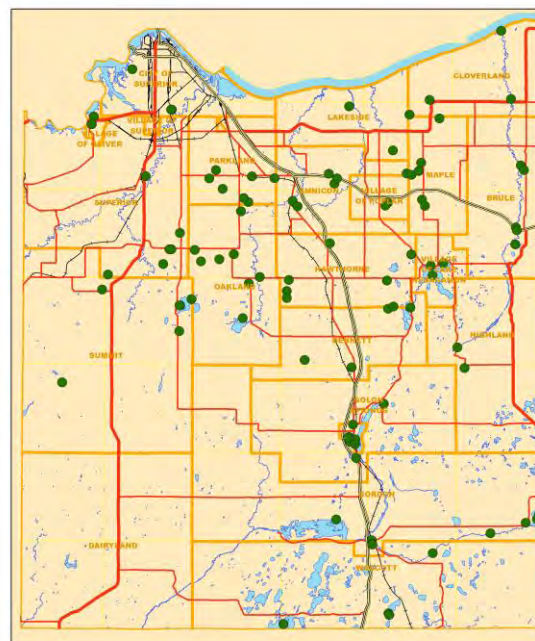


Figure 2. Green points show participation in the initial well sampling effort 2017-2018; map illustrates where there are gaps in data.

St. Croix Headwaters Watershed Stewardship Project

DNR grant project # LPT-453-14

Payee	Cost Description	Cash Costs	Donated Costs (submitted)	DNR-approved Reimb. Amt.	<u>Not Approved for Reimb.</u>	Explanation	UWS Requested Refund	DC Chairman Request	UWS Actual Refund
UWS	Salary/fringe	91,252.43		54,751.46	36,500.97	Based on project being 60% complete	36,500.97	10,721.51	0
UWS	Indirect	14,600.39		0.00	14,600.39	Not eligible	14,600.39	14,600.39	14,600.39
UWS	Supply/travel/mailing	10,389.32		9,931.75	457.57	457.57 food expense not eligible	457.57	457.57	457.57
<i>UWS unpaid invoice</i>									<i>(15,581.08)</i>
White Birch Printing	Land use booklet	889.72		889.72					
MLM Consulting	GIS services	5,018.00		5,018.00					
Prairie Restoration	Carlson site		1,000.00						
Prairie Restoration	Grossman site		1,000.00						
Prairie Restoration	Heller site		2,000.00						
Amys Excv.	Carlson site	3,325.14	5,964.34	0.00	3,325.14	Not eligible			
Amys Excv.	Grossman site	3,840.45	6,989.83	0.00	3,840.45	Not eligible			
Amys Excv.	Heller site	4,108.47	5,304.51	0.00	4,108.47	Not eligible			
Ostern	Prof. services		22,960.00						
Bertsch	Prof. services		3,224.00						
Total		133,923.92		70,590.93	62,832.99		51,558.93	25,779.47	15,057.96 <i>(30,639.04)</i> <i>Incl. unpaid invoice</i>