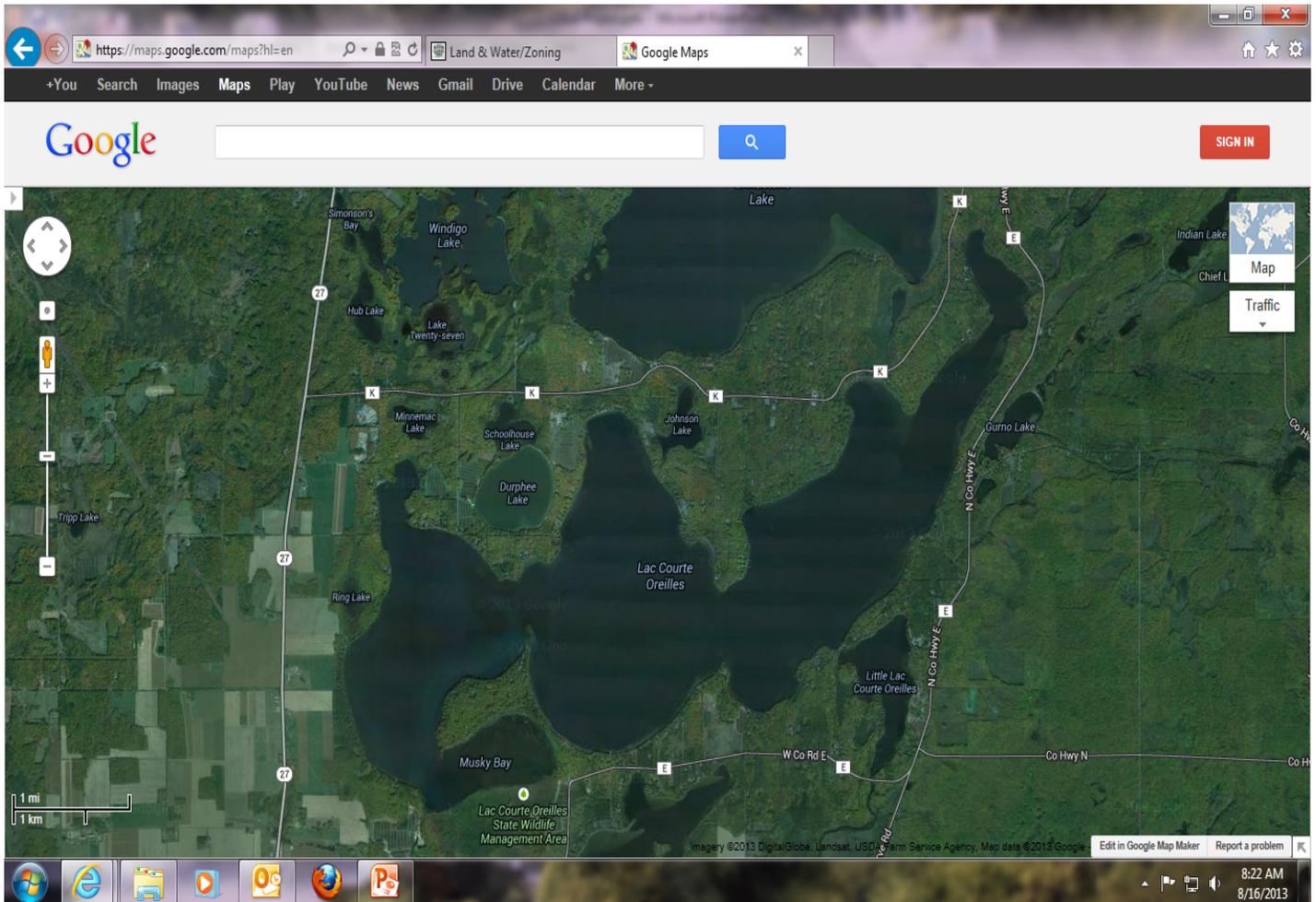


# Lac Courte Oreilles & Little Lac Courte Oreilles Septic Survey



Summer 2013

Sawyer County Intern Craig Dantoin

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## BACKGROUND OF LAKE SEPTIC SURVEYS

### History

Sawyer County began lake septic surveys in the 1970's. This fostered relationships with the community while verifying code compliance of septic systems, also giving college interns experience in the field as well (List 1, lakes surveyed in past). Eric Wellauer, Sawyer County Sanitarian is continuing the practice of finding lake associations willing to actively promote septic survey inspections for their lake.

Lac Courte Oreilles (LCO) was evaluated in 1994, but COLA (Courte Oreilles Lakes Association) provided funding for a summer intern to conduct a more current survey in 2013 to complement their TMDL study. Conducting a septic survey twice on a lake is unusual, because Sawyer County tries to inspect new bodies of water each year. However, due to the contributions from the lake association for the salary of an intern, LCO was resurveyed. The methods used to test systems will be described in depth later. Sawyer County has built a great reputation for their expertise and knowledge in conducting lake septic surveys and is regularly sought-after by lake associations to carry out surveys for this reason.

Lake septic surveys are intended to find septic systems that are not properly treating wastewater, ultimately impacting water quality of nearby lakes and/or causing environmental or health concerns. Usually, there is a 10-15% failure rate of septic systems in lake surveys, but because LCO had previously been surveyed, it was forecasted that there would be far fewer failures, 5% or less. The original estimate predicted 663 parcels along the lake shore, that would be visited onsite to verify:

1. A septic system on the premises or if the lot is vacant
2. What type of septic system is currently in place
3. Whether or not the system complies with applicable regulations
4. If there are zoning/health issues present (graywater discharge, etc.)

Not verification. Maybe add a sentence outside of the list

Interns chosen for septic surveys have been almost exclusively UW-Stevens Point students pursuing educations in waste management or soils degrees. This is well coupled to fit job requirements for the position, as well as providing much needed experience in a related field to the intern and/or earning college credit for successfully completing the summer position.

### Initiation of Lake Septic Survey

Sawyer County requires that more than half (51% or more) the landowners approve the survey and consequent inspections. COLA is a very well organized and influential lake association that has a large following of members and they easily surpassing the required amount of participants with 92% approval from all returned survey cards (367 total cards received back: 339 Yes, 28 No).

Lac Courte Oreilles is nearly double the size of most lakes surveyed in a summer, so the retired county sanitarian Mac Maki was contracted to do 345 parcels, due to his intimate knowledge of private

on-site wastewater treatment systems (POWTS) and soil morphology. The Sawyer County Sanitarian, Eric Wellauer, was established as the contact for Sawyer County, and did most of the field training/on-the-job training until sufficient experience was obtained for the intern to conduct evaluations. Additional assistance was also provided by Jay Kozlowski, the Sawyer County Zoning and Sanitation Technician. Systems must be deemed failing by a person licensed to do so, and Sawyer County Zoning and Conservation department members are recognized by the Department of Safety and Professional Services under WI Administrative Code to determine whether systems are within code compliance.

## **Commonly Seen Septic Systems**

There are many different types of septic systems and components utilized around LCO, some of which are currently allowed as well as others that are no longer approved within the state. Some POWTS utilize an in-ground soil absorption system, which disperses effluent or wastewater that is partially treated in the septic tank (illustration of septic tank in appendix 1). Other dwellings may have a holding tank (septic tank with no outlet) that must be pumped when it is full.

Concrete tanks are the most commonly seen septic/holding tanks in this area, although there are polyurethane (plastic) and steel tanks as well. Concrete and polyurethane tanks are still approved products by the State of Wisconsin, but steel are no longer allowed for installation because they are prone to rust and consequent collapse from the weight of soil overburden. Steel tanks posed a large issue around LCO (as well as much of northern Wisconsin), particularly because many were installed 20-30 years ago and no longer have necessary rigidity, making them prone to collapse. The large amount of precipitation in the spring of 2013 made many steel tanks cave in with little or no help from owners.

At inspection, a probing instrument was used to prod the tanks, many of which could be easily penetrated. This is of major concern because tanks should be able to withstand pressure if they are to be structurally sound enough to support the ground above them while containing raw sewage. Unfortunately in many circumstances, components inside the tank are severely compromised and no longer functioning, causing the soil absorption system or “drainfield” to fail. Another common issue is sewage that seeps from rust holes in the tanks, sometimes to the extent that liquid never reaches the height of the outlet on the tank. All owners with steel tanks were advised of their hazards and probable need for replacement verbally or via a flyer that was left in their door, as a public awareness brochure devised by Eric Wellauer (brochure attached at end of paper).

Soil absorption systems are designed specifically for each site within general guidelines illustrated within state statute, although many older systems were constructed years before standards were adopted or monitored by regulatory agencies. Drywells, seepage beds, trench, and mound systems were all common around the lake during the survey for the in-ground treatment of effluent. (Elementarily depicted in appendix 2). Trench and mound soil absorption systems are the only aforementioned methods still approved for installation, with many natural and manufactured products used for dispersal of effluent within the treatment cell (products are beyond the scope of this paper).

Drywell and seepage bed absorption systems are still able to be utilized if only a septic tank needs to be replaced, given they meet some required criteria.

## **Failure of a Septic System**

The failure of septic systems is defined and categorized by Chapter 145 of Wisconsin Administrative Code. According to this statute:

*A “failing private sewage system” means a private sewage system which causes or results in any of the following conditions:*

- *The discharge of sewage into surface water or groundwater.*
- *The introduction of sewage into zones of saturation which adversely affects the operation of a private sewage system.*
- *The discharge of sewage to a drain tile or into zones of bedrock.*
- *The discharge of sewage to the surface of the ground.*
- *The failure to accept sewage discharges and backup of sewage into the structure served by the private sewage system.*

Most conventional (or gravity fed) septic systems can be envisioned as “designed to fail” in a systematic fashion. Bacteria that treat effluent where soil and wastewater meet underground form a bio-mat or clogging “slime”. As wastewater is added to the soil with a “slime” layer covering it, the soil fails to accept wastewater because there is too much resistance for wastewater to move through it. This causes effluent to flow further downstream in the cell before it can be incorporated into the soil. When soil surrounding the cell is incapable of allowing effluent to pass into the soil, the septic begins to flood and backs up onto the ground or into the septic tank (possibly even into dwelling).



(MORE CLOGGED)(LESS CLOGGED)

Some septic system components (i.e. pump) were compromised or “structurally sound” but not pre-treated.

internal tank itself “light” and not been



Large hole rusted through outlet baffle on steel tank



Top of steel tank collapsed (covered by neighbor so dogs would not fall in)

For further information on steel tanks and the potential hazards they present, please contact Eric Wellauer or Craig Dantoin, information provided at end of paper.

## STANDARD INSPECTION METHOD

### Pre-field (Office) Work

Before an on-site inspection was conducted, preliminary work was done at the Sawyer County Zoning Office. Doing research prior to being in the field made testing the functionality of a system easier and faster. First, individual parcels along the lakeshore had to be delineated by use of a parcel map containing the identification number. The parcel identification number (PIN) was used to find prior permits that had been secured for that individual parcel, as well as basic information such as address and landowner name. Sanitary permits, as well as other types that indicated the location of a septic system or treatment/dispersal component of a system were copied and attached to inspection sheets used in the field to record information ( Figure 1). Any subdivision or condominium units that had plats were also copied for aiding in locating septic components.

Secondly, the pumping history of properties was researched on a County based database. This indicated if the owners had maintained the state required minimum pumping cycle (3 years), which coincidentally helped to determine if there was a septic installed in years prior to the recording of sanitary permits in the office. All septic pumpers and inspectors in Sawyer County are required to report the servicing and/or maintenance to the County within 30 days through this shared on-line database, which tracks all known septic systems for compliance as mandated by Code. Systems installed prior to 1968 are largely unrecorded in Sawyer County and situations where a permit was not in office, required a rough plot plan to be drawn at time of inspection to illustrate components that were discovered on-site.

## **Field Work**

When a site was inspected, a routine of events transpired:

1. Identifying yourself as a Sawyer County Intern that was conducting the lake septic survey
2. Asking applicable questions that were recorded on inspection information sheet
3. Requesting permission to conduct necessary verification of properly functioning soil absorption component of septic system
4. Verifying location of said components if on permit, or if not asking owner of knowledge pertaining to location of system
5. Looking for signs of failure in system (in particular soil absorption components) such as:
  - Ponding of effluent in system by removing vent/observation caps and placing measuring device down pipe
  - Discharging of effluent/sewage to surface or ground
  - Verifying depth to infiltrative surface in perspective to the ordinary high water mark, to ensure required separation<sup>1</sup> is present, using laser level or contractors level to measure elevations
  - Applying pressure to tank with tile probe or “T-Probe”, shown below, to ensure integrity of tank (steel tanks).
6. Doing walk around site/house to inspect for “graywater” discharge of domestic household waste (especially from washers and sinks), prominent in low lying areas with holding tanks. (Particularly with owners are worried about contributions to a tank that has to be pumped when full)
7. Leaving card to notify owner of date present on property if not at contacted before inspection, and give reminder to pump system if overdue for servicing and maintenance requirements

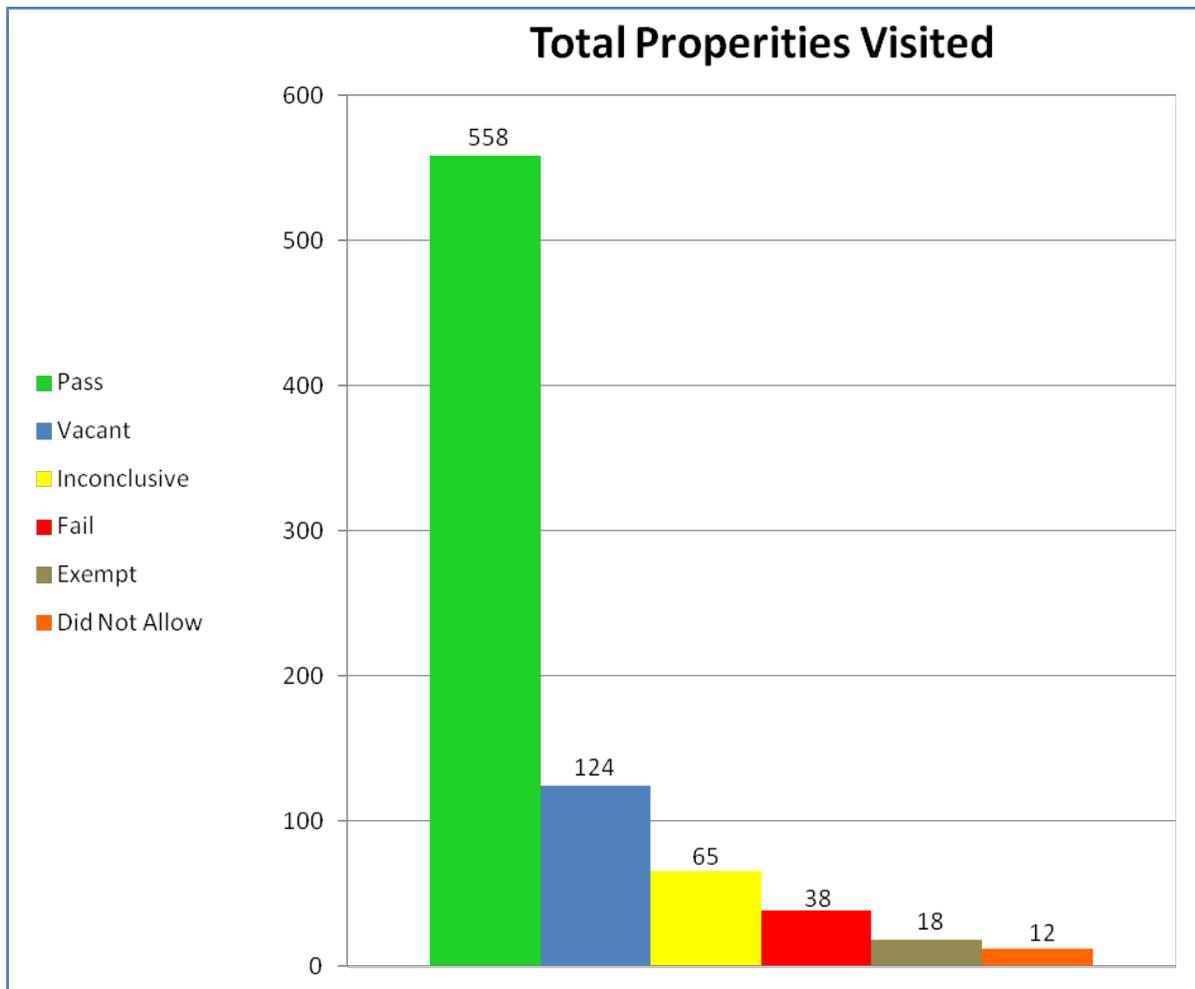


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<sup>1</sup> Required separation by state statute, is a minimum vertical distance from the bottom of the system that is discharging effluent to a restrictive layer, most commonly saturated soils, which states at least 3 feet of unsaturated soil must be below the system for any installed after December 1, 1969. Prior to this date the minimum separation was 2 feet.

## CALCULATING TOTALS AND GRAPHIC DEPICTION

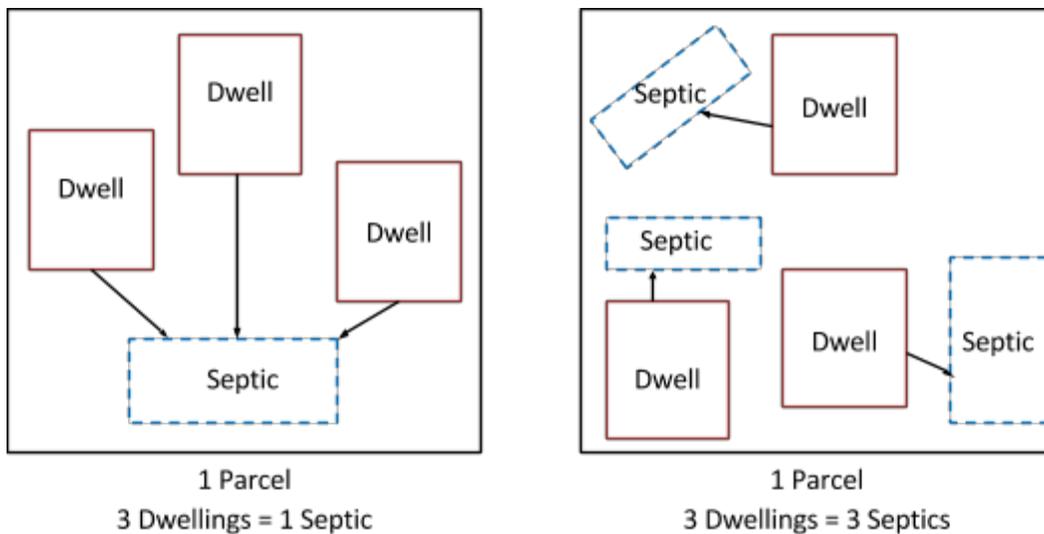
Since there are so many properties along the shore of LCO, the lake was broken into 39 smaller sections. Each of these sections contained 15-25 parcels, and made coordination easier within the office as well as harmonizing with homeowners that called with inquiries. In entirety, there were 815 properties inspected. The estimate of parcels was originally 663, the projected amount differing so greatly due to the underestimation of condominium units, which are represented as one parcel on a map. However, in many circumstances a condo could contain multiple systems, and the number of “properties” documented was the sum of systems and/or the parcel (if vacant) that was checked. Of the 815 total properties, 18 were exempt because they were State or Native American owned land and 12 owners did not allow inspection. Therefore, only 785 of the parcels were evaluated to have a septic or were deemed vacant (not having system).



To yield more useful results beyond initial tallies that are published in a report, parcel information was entered in a computer spreadsheet after being inspected. This creates a database to categorize each parcel with all pertinent information, so it can be utilized/maintained in the future by

COLA or Sawyer County to track the progress of systems that are failing or required to correct issues that are present. A GIS (geographic information system) map can also be made from the information entered into the database, giving the ability to highlight or indicate properties with the chosen characteristics. Creative depiction, such as a time lapse, could be used to show failing systems and the amount of time it took to correct the issue, corresponding to recent and possible future water testing that COLA is undertaking with their TMDL studies.

When calculating the percent of systems “failing”, it was difficult to ascertain a representation that is proportionate, considering that vacant properties are not applicable to having “passing” septic. Further complicating the issue is the fact that all dwellings, especially when there are several on one parcel, are evaluated and counted as being inspected (a condo with 5 dwellings only has one septic system, but each has to be deemed as failing or passing). Therefore, the ratio of failing systems was calculated using the total number of septic systems that exist on shoreline property. There were instances in which several onsite treatment systems are present, most influential to statistics in condos or places where there are several dwellings present on one parcel. Several parcels can be tied into a joint or shared system, or there can be parcels that have several dwellings each on their own system. (More easily explained by illustration below.)

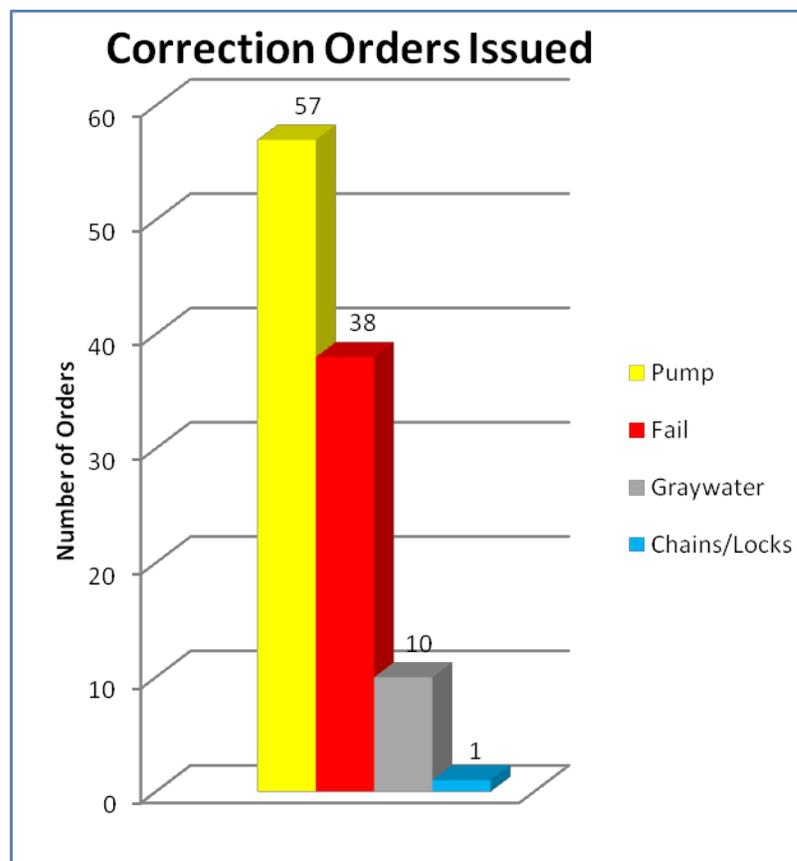


In all, there were 695 septic systems on 815 parcels, with 38 that were determined to be failing private onsite wastewater treatment systems. Need an explanation of “Inconclusive. Considering the difficulty to establish a logical way of comparing these drastically different figures, it was thought best to use a comparison of “systems to systems” or “parcels to parcels” to present findings, being most evenhanded overall. Otherwise, an entire parcel could be deemed “failing” because one condo owner did not have a compliant system (as depicted above on right, where there is a “single ownership” for an entire parcel with several systems).

## ORDERS FOR CORRECTION

106 orders for correction were issued to landowners, for a variety of reasons. Most consisted of orders to complete maintenance/servicing requirements, in which Code requires a visual inspection and/or pumping be conducted every 3 years. Others correction orders included the need to replace failed systems, graywater discharge, and installing a locking mechanism on access openings.

Any order for a correction that was sent to owners is a legal document from Sawyer County, giving them a strict deadline to correct issues. All violations which were not failed systems were given 30 days to right the problem. A failing septic system was given anywhere from 30 days to 1 year, depending on how egregious the problem and how large the health hazard it posed. In either case, the owner must have a plumber contact Sawyer County within 30 days with a devised strategy and tentative deadline for the completion of reparation. Fortunately, by the end of summer there were already new septic systems being installed by owners complying with the orders sent out. (List of owners and reason for correction in appendix 3) Need an explanation of “Explain System (not ordered)” somewhere.



All inspection findings documented during inspections were left at Sawyer County Zoning and Conservation, with the intent that Mark Lastrup will have access during the winter of 2013-2014 to document them in the database that was started. This will give COLA and Sawyer County a comprehensive list that can be easily manipulated to give pertinent information and create maps that show areas of interest or correction orders.

## ABOUT THE INTERN

The intern for the summer was Craig Dantoin, a recent graduate from UW-Stevens Point with majors in Soil & Land Management Planning and Resource Management-Law Enforcement. He grew up in Northeastern Wisconsin and wanted to find a career in the Northwood's as well. After the internship with Sawyer County in the summer of 2013, he was hired by Burnett County Zoning and Land Use Dept.

## THANK YOU'S FROM AUTHOR:

Dr. Jacob Prater, at UWSP, for being an inspirational instructor as well as being versatile at finding pathways to educate students and diligently working to satisfy the vocational experience that students must acquire, which I am enormously appreciative of.

The Courte Oreilles Lakes Association, who funded the summer internship. It is extremely hard to find lake associations that have such enthusiasm for protecting a resource they hold so dearly, and Mark Lastrup for working with me as a liaison.

Mert "Mac" Maki, for not only hosting a fantastic program for many years before me, but for also opening the doors of his home to each intern looking for a place to rent during their summers working in Sawyer County. The gesture will not soon be forgotten.

Lastly, thank you to Sawyer County and the County Board for the opportunity to participate in this wonderful program that I was so lucky to take part in.

As a personal note, the entire Sawyer County Staff should be applauded for their hard work and dedication. There is a tremendous amount of added effort required to train and coordinate with an intern, and they graciously accept with new interns annually.

A special thanks to Eric Wellauer for his patience and desire to work with a new intern each year and for the recommendation that led to my employment with at Burnett County Zoning.

## APPENDIX 1

### List 1-- Previously Surveyed Lakes

Barber Lake	2011
Nelson Lake	2010
Lake Chetac	2008
Grindstone Lake	2007
Windigo Lake	2006
Placid Lake	2002
Upper Twin Lake	2002
Tiger Cat Flowage	2002
McClaine Lake	2002
Lower Twin Lake	2002
Burns Lake	2002
Round Lake	1998-1999
Lost Land Lake	1995
Blueberry Lake	1995
LCO Lake	1994
Teal Lake	1993
Whitefish Lake	1993
Spider Lake	1992
Sissabagama Lake	1990

**Figure 1--On-Site Inspection Form**

**On-Site Inspection Form**

LAKE SEPTIC/SEWER INFORMATION FORM

Date \_\_\_/\_\_\_/2012

Lake: Lac Courte Oreilles Tax Parcel ID# \_\_\_\_\_

Inspector: CRAIG DANTON Sanitary Permit \_\_\_\_\_  
 Soil Test \_\_\_\_\_  
 LUP \_\_\_\_\_

**OWNER:**

Name \_\_\_\_\_ Septic Address: Fire Number/Road/City \_\_\_\_\_

Permanent Address: City/State/Zip \_\_\_\_\_ Local Phone Number \_\_\_\_\_

**MISCELLANEOUS:**

Age of Dwelling: \_\_\_\_\_ Years Old Server: \_\_\_\_\_ Years Old

Usage:  Year Round  Seasonal  
 If Seasonal: Usage: How many days of the year: \_\_\_\_\_ Days

Usage: Total Bedrooms \_\_\_\_\_ Persons Served \_\_\_\_\_  
 Garbage Disposal  Water Softener

How often do you pump the septic tank: \_\_\_\_\_ Years  
 (Code: Pump every 3 years or when 1/2<sup>nd</sup> full of sludge)

As of July 1, 2000, a filter is required by state code on all septic tanks. Is homeowner aware of this requirement?  
 Yes  No  
 Is there a filter, if installed after July 1, 2000?  Yes  No

**SYSTEM:**

POWTS - Private On-site Wastewater Treatment System \_\_\_\_\_ Gallons  
 Septic Tank:  Steel  Concrete  Fiberglass  Unknown

System:  Bed - Size \_\_\_\_\_, Unknown \_\_\_\_\_  
 Trench(es) - Size \_\_\_\_\_, Unknown \_\_\_\_\_  
 Drywell - Size \_\_\_\_\_, Unknown \_\_\_\_\_  
 Mound - Size \_\_\_\_\_, Unknown \_\_\_\_\_  
 Holding Tank - Size \_\_\_\_\_, Unknown \_\_\_\_\_

**INSPECTION RESULTS:**

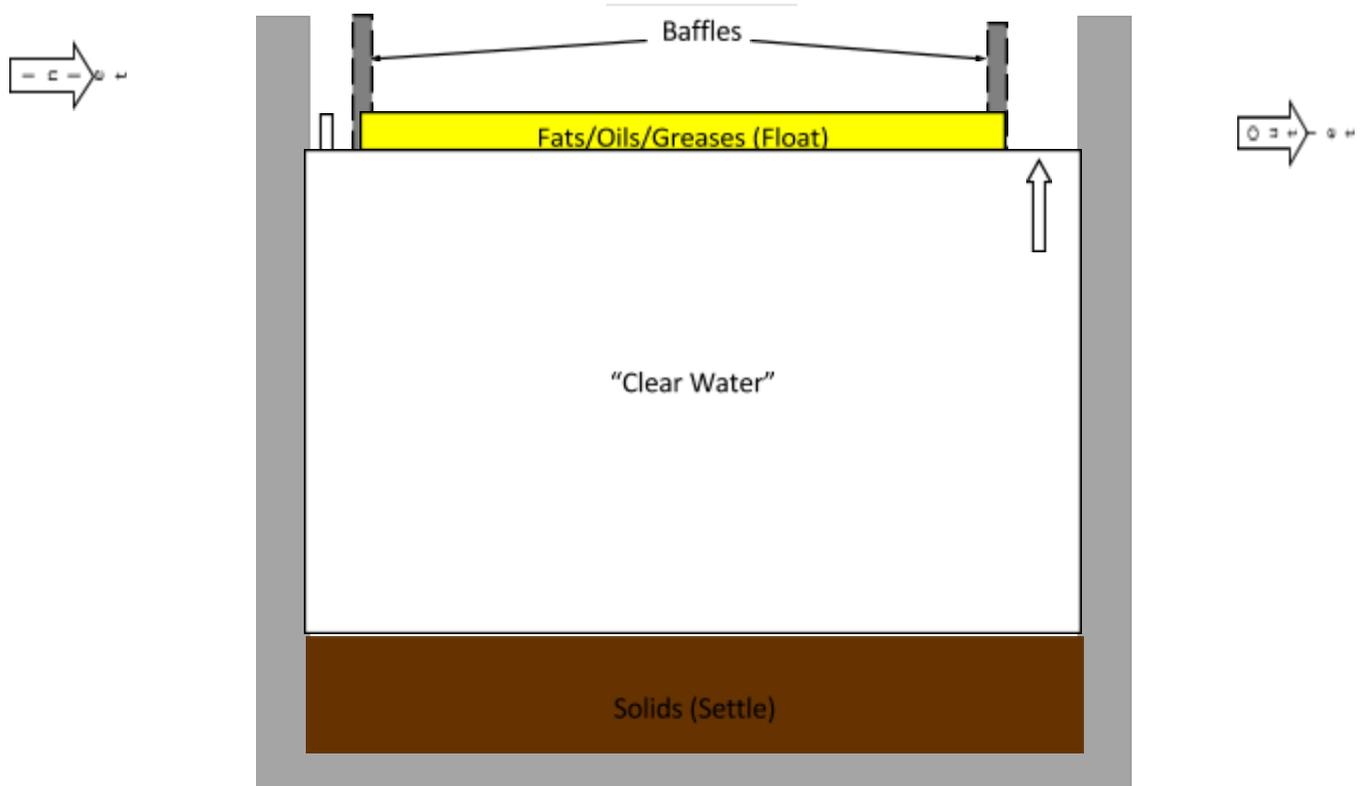
PASS  FAIL MORE INSPECTION REQUIRED \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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## Septic Tank Cross-Section (Main Components)

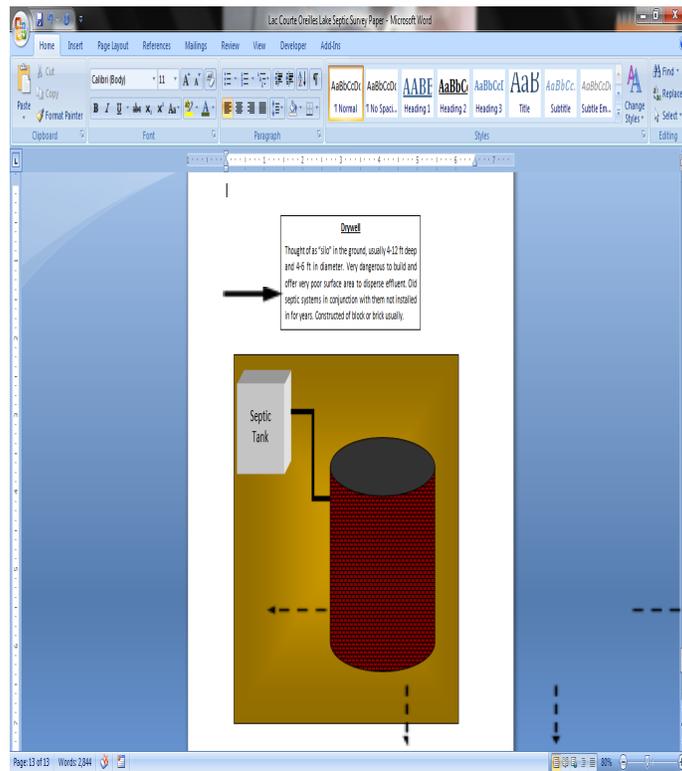
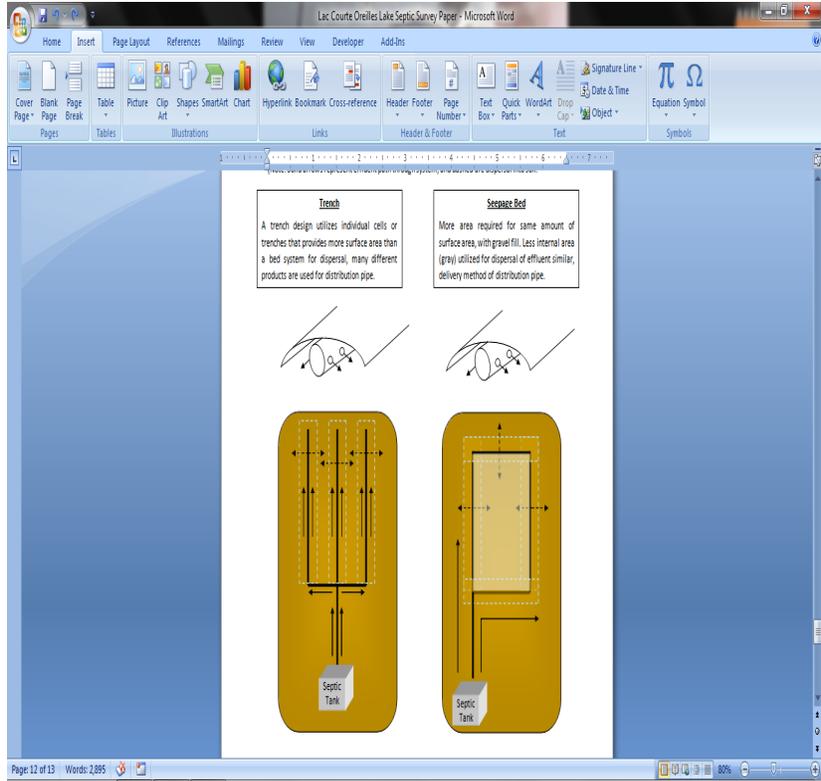
Septic tank stratifies the sewage that is added, keeping most large particles out of SAS, to prevent clogging soil prematurely. Effluent is partially treated by anaerobic bacteria in tank. Baffles are shown in cross-section, to display how they separate fats, oils, and greases from clear water to keep it from SAS.



## **Types of Soil Absorption Systems**

Trench, Seepage Bed, Drywell

(Note: Solid arrows represent effluent path through system, dashed indicates dispersal into soil.)



## **List of Owners Sent Correction Orders**

<b>Name</b>	<b>Local Address</b>	<b>Correction Needed</b>
Adkins, Frank & Angela	15061W White Sand Rd	System Failure
Anderson, Clifford & Evelyn	7305N County Hwy KK	System Failure
Austin et al	6830N Victory Heights Cir	System Failure
Bagamery, Edward & Matthew	6556N Thors Ln	System Failure
Barrows/Ojibwa Partners	15765 & 15769 Lake Shore Rd	System Failure
Bidgood, Marguerite	7610N Court Oreilles Lake Dr.	Pumping Required
Boxleitner Trust, Clifford	6789N Norway Shore Ln	System Failure
Bunge, Nancy	No fire #, given info and ordered to get one	Graywater (x2)
Burrows, John & Sarah	7729N Wilkie Rd	System Failure
Cahill et al, John	15592W Victory Heights Cir	System Failure
Carroll Trust	14664W Buckeye Ln	Pumping Required
Casey, John & Sheila	7435N Beach Rd	Explain System (not ordered)
Chase, M. & Chong, J.	15005W County Hwy K	Pumping Required
Christensen, John	7245N Rehor Rd	System Failure
Cocklin, William & Constance	Pumping Required	
Cocklin, William & Constance	7440N Park Ln	Pumping Required
Contreras, David/Eva & Mark	7125N Red Pine Ln	Pumping Required
Croal, Kevin & Elizabeth	7721N Broken Arrow Rd	Explain System (not ordered)
Daleiden, Norbert & Bonnie	14281W Court Oreilles Lake Dr	System Failure
De Young, Jeffrey	14331W Court Oreilles Lake Dr	Pumping Required
Eagle Partners LLC	15631W YMCA Rd	Pumping Required
Easker, Douglas & Cynthia	14706W Sand Beach Ln	Pump & Graywater
Eckerline, Paul	14999W County Hwy K	Pumping Required
Eckerline, Paul	14714W Sand Beach Ln	Pumping Required
Eckerline, Paul	14710W Sand Beach Ln	Pumping Required
Eckerline, Paul	6743N Vista Ln	Pumping Required
Eckerline, Paul	6746N Vista Ln	Pumping Required

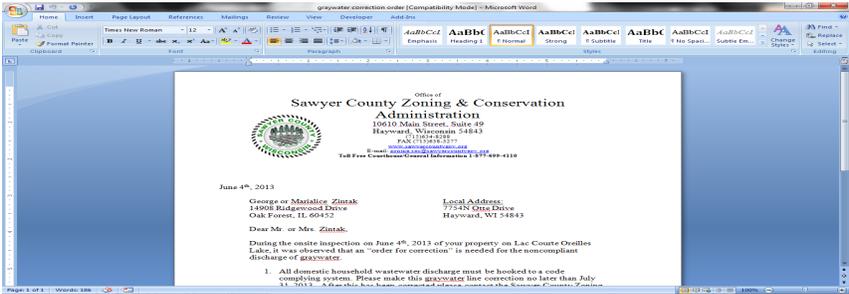
Elbert et al, Bruce	6718N Victory Heights Cir	System Failure
Erickson, Leland & Gertrude	15809W Stukey Bay Ln	Pumping Required
Fager, James	14521W Ojibwa Court	Pumping Required
Fahey, Shaun	7038N Thoroughfare Rd	System Failure
Faitek, Erica & Adam	6895N Victory Heights	System Failure & Pump
Fesenmaier, Joseph & Jennifer	14942W County Hwy E	System Failure
Fey, Phillip & Barbara	14622W Buckeye Ln	Pumping Required
Fortier, Michael & Julie	13666W Pine Shores Ln	System Failure
Friendshuh, Steven	7616N Court Oreilles Lake Dr.	System Failure
Hamernick, Helen	8179N Pine Crest Rd	Pumping Required
Hamilton, Ellen	7598N Court Oreilles Lake Dr	Pumping Required & Graywater
Haugen, James	15715W Gossens Rd	Pumping Required
Heimbach, Martha	14315W Court Oreilles Lake Dr	Explain System (not ordered)
Helmar LLC	7294N Winters Point Rd	Explain System (not ordered)
Hokeness, Bryant & Ann	7789N Wilkie Rd	Pumping Required
Hopkins, George & Cindy	15746W Victory Heights Cir	Graywater
Horman, Michele	8080N County Hwy K	System Failure
Hullett, Lawrence	14347W Court Oreilles Lake Dr	Pumping Required
Janczak, Robert & Alice	15805W Stukey Bay Ln	Pumping Required
Janecek, Alan	7082N Thoroughfare Rd	Explain System (not ordered)
Jaunich Trust (Greg/Julie)	15281W Circle Rd	Pumping Required
Johnson, Mark & Barbara	15070W Oak Rd	System Failure
Johnson, Mark & Barbara	6798N Victory Heights Cir	System Failure
Johnson, William & Joanne	6898N Victory Heights Cir.	System Failure
Johnston, John & Judy	15055W White Sand Rd	System Failure
Jones, Thomas & Charlene	15235W Circle Rd	Graywater
Jones, Tony/Gladys	7090N Thoroughfare Rd	Pumping Required
Jonjak Cranberry Farm	15786W Gossens Rd	Pumping Required
Kirn, John & Cynthia	15724W Victory Heights Cir	Pumping Required
Lada, Roland & Kathleen	6812N Victory Heights Cir	System Failure

Limine Inn (Peter Lind)	15141W Circle Rd	Graywater
McBroom, Michael & Shirley	6752N Vista Ln	Pumping Required
Middleton, Sandra	15515W White Pine Ln	System Failure
Miller, Dean & Heide	6953N Wolfe Point Ln	System Failure
Mott Trust, David & Carol	7436N Park Ln	Pumping Required
Murray, Gerald & Barbara	7323N Rocky Point Ln	Graywater
Nelson, Dwight et al	7210N Winters Point Rd	Pumping Required
O'Keefe, Patrick & Dianne	7415N Beach Rd	Graywater & Pumping Required
Olijar, George & Dorothy	15610W Victory Heights Cir	Explain System (not ordered)
O'Meara, Angela	6899N Victory Heights Cir	System Failure
Palermo Trust, Irma	6790N Fleur De Ln	System Failure
Panek, Thomas & Gale	8125N Pine Crest Rd	Pumping Required
Pardi, Darrell & Elaine	15167W Circle Rd	Graywater
Pergrams Trust	7124N Thoroughfare Rd	Pumping Required
Peterson, Ronald & Marilyn	7405N Beach Rd	Pumping Required
Pfendt, Agnete	7630N Court Oreilles Lake Dr.	Pumping Required
Pfendt, Glenn	7636N Court Oreilles Lake Dr.	Pumping Required
Popover Trust	14612W School House Ln	Pumping Required
Popover Trust	14612W Buckeye Ln	Pumping Required
Puls, Robert	14273W Court Oreilles Lake Dr	Graywater & Pumping Required
Rasmussen, Harold/Cindy	77692 Otte Dr.	Graywater
Reed et al	14598W Buckeye Ln	Pumping Required
Riordan Trust, Clifford	15566W Victory Heights Cir	Pumping Required
Ripperton, Patricia	7742 Otte Dr.	System Failure
Rouse, Susan	7244N Winters Point Rd	System Failure
Rusk Trust	7406N Park Ln	Pumping Required
Ruzicka, Patricia	7740N Otte Dr.	System Failure
Sanders Trust	7242N Moccasin Rd	Pumping Required
Sard of Courte Oreilles	14757W Highland Rd	Pumping Required
Schreiber, James & Maureen	14533W Ojibwa Court	Explain System (not ordered)

Sellew, Phillip & Kathleen	15626W Victory Heights Cir	Pumping Required
Sheehy Family Trust	7265N Rehor Rd	Secure Lids
Simnacher, Gary & Loretta	14734W Sand Beach Ln	System Failure
Simonson	7123N Red Pine Ln	Pumping Required
Skura Trust	14902W County Hwy E	Pumping Required
Sloan, Vernon/Cynthia	7054N Thoroughfare Rd	Pumping Required
Soderberg, John & Hubertina	6874N Victory Heights Cir	Pumping Required
Sparish, Diane	7368N Indian Drive	Pumping Required
Sprogis, Laimonis & Burita	14720W Sand Beach Ln	Pumping Required
Standard Bank & Trust	7361N Highland Shores Ln	Pumping Required
Stearns Trust, Betty	7050N Ring Rd	Graywater
Swan, Gerald & Terri Lee	14655W Sunset Bay Ln	System Failure
Toogood, Lydia	7087N Thoroughfare Rd	Pumping Required
Utzig Trust, Mary	7222N Winters Point Rd	Pumping Required
Utzig, Sara	7584N Court Oreilles Lake Dr	Pumping Required
Vaudreuil, John	6864N Victory Heights Cir	Pumping Required
Velasquez	7129N Red Pine Ln	Pumping Required
Velasquez/Harlan	7127N Red Pine Ln	Explain System (not ordered)
VHP Family Partnership LLC	15773W Lake Shore Rd	Pumping Required
Wallace, James & Donna	7427N Beach Rd	Explain System (not ordered)
Wheeler et al (james)	14237W Court Oreilles Dr	Pumping Required
Wheeler et al (james)	14241W Court Oreilles Dr	Pumping Required
Williams, Tiffany Trust	7550N Landgraf Rd	Pumping Required
Winters, Richard & Margaret	7650 N Wurster Rd	System Failure
Zdybel Trust, Virginia	15616W Victory Heights Cir	Pumping Required
Zintak, Marialice	7754N Otte Dr.	Graywater
Zylkowski, Michael & Lisa	7133N Thoroughfare Rd	System Failure

## CONTACT INFORMATION

For any questions about the survey results, updates, or findings contact Eric Wellauer at Sawyer County Zoning and Conservation Department. For inquiries about the methods or intern, contact Craig Dantoin.



**Craig Dantoin**  
**Burnett County Zoning Administration**

**Burnett County Government Center**  
**7410 COUNTY ROAD K, #102**  
**SIREN, WISCONSIN 54872**  
**PHONE (715) 349-2138**  
**[www.burnettcounty.com](http://www.burnettcounty.com)**  
**EMAIL – [cdantoin@burnettcounty.org](mailto:cdantoin@burnettcounty.org)**

# STEEL TANK BROCHURE

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It's not a matter of  
**'IF'...**  
Rather a question of  
**'WHEN'**




**Health and Safety Hazards of Steel Septic Tanks**



For more information, contact:

**Sawyer County Zoning & Conservation**  
10610 Main Street, Suite 49  
Hayward, WI 54843  
(715) 634-8288  
sanitarian@sawyercountygov.org

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**Problems:**

During the 1960s and even into the 1990s, steel septic tanks were commonly used in septic system installations. Like automobiles, steel tanks are prone to rust and corrosion. The structural integrity of steel tanks weakens in as little as a decade and could eventually result in:

- **Human health risk** if exposed to household domestic wastewater
- **Collapse and/or cave-in** of the tank due to heavy saturated soils, frost heaving or compaction by driving or walking
- **Groundwater contamination** from untreated wastewater leaking out of a tank with holes
- **Outlet baffle failure** allows solids, fats, oils and greases to flow downstream and form a clogging mat in the absorption system
- **Infiltration of groundwater** into the steel tank through the holes adds excessive and unnecessary hydraulic pressure on the entire system



**Solutions:**

Avoid death, injury, damage to property and other health and safety hazards by considering the following:

- Replace ANY existing steel tanks with a new code complying and product approved tank. Start by contacting a Wisconsin Licensed Plumber.
- Flag, ribbon, cover, barricade and/or rope-off potential hazardous areas.
- Avoid walking, mowing, driving on/or above old steel tanks, as covers and lids may collapse or cave-in.
- Have all septic tanks pumped and inspected once every three years or when the sludge and solids reach 1/3 tank capacity.




**Assistance and Reimbursement**

- **WI Fund-** A state program providing reimbursement grants to homeowners and owners of small businesses that need to replace failing private wastewater treatment systems.
- **USDA, Rural Development-** A federal program that offers loans and grants for home improvements.

