

A

APPENDIX A

Public Participation Materials




***Pickerel Chain
Lakes Association***

**Pickerel Chain Lakes
Management Planning Project
Kick-off Meeting
July 25, 2015**

Dan Cibulka
Onterra LLC
Lake Management Planning

Presentation Outline

- Onterra, LLC
- Why Create a Management Plan?
- Elements of a Lake Management Planning Project
 - Data & Information
 - Planning Process



Onterra, LLC
Lake Management Planning

Onterra, LLC

- Founded in 2005
- Staff
 - Four full-time ecologists
 - Two full-time field technicians
 - Four summer interns
- Services
 - Science and planning
- Philosophy
 - Promote realistic planning
 - Assist, not direct



Onterra, LLC
Lake Management Planning

Why create a lake management plan?

- To create a better understanding of the lake's positive and negative attributes.
- To discover ways to minimize the negative attributes and maximize the positive attributes.
- To foster realistic expectations and dispel myths.
- To create a snapshot of the lake for future reference and planning.



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Lake Management Planning

Elements of an Effective Lake Management Planning Project

Data and Information Gathering

Environmental & Sociological

Planning Process

Brings it all together



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Lake Management Planning

Data and information gathering

- Study Components
 - Water Quality Analysis
 - Watershed Assessment
 - Aquatic Plant Surveys
 - Fisheries Data Integration
 - Shoreline Assessment
 - Stakeholder Survey



Onterra LLC
Lake Management Planning

Water Quality Analysis

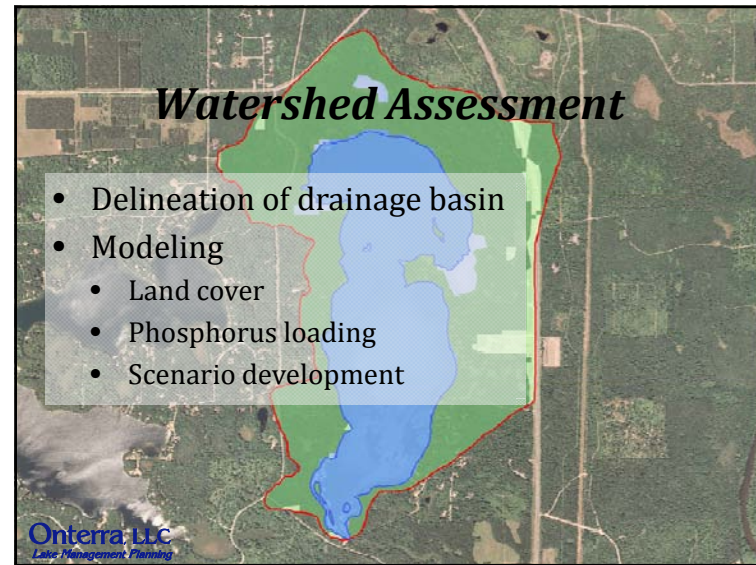
- General water chemistry (current & historic)
 - Citizens Lake Monitoring Network
- Nutrient analysis
 - Lake trophic state (Eutrophication)
 - Limiting plant nutrient
- Supporting data for watershed modeling
- Investigation into Little Pickerel blue-green algae



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Lake Management Planning

Watershed Assessment

- Delineation of drainage basin
- Modeling
 - Land cover
 - Phosphorus loading
 - Scenario development



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Aquatic Plant Surveys

- Concerned with both native and non-native plants
- Multiple surveys used in assessment
 - Early Season AIS Survey


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Non-native Aquatic Plants


Curly-leaf Pondweed



Purple loosestrife



Eurasian water milfoil



Found along Pickerel Chain Lakes shoreline to a minimal extent

Not found within Pickerel Chain Lakes

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Lake Management Planning

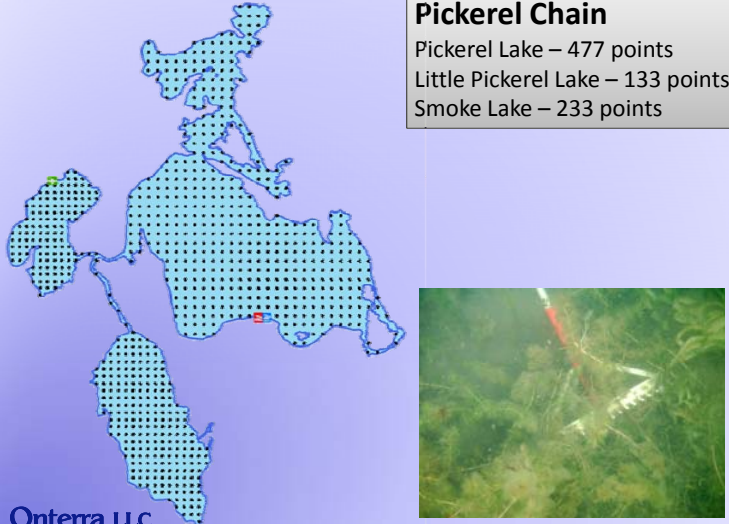
Aquatic Plant Surveys

- Concerned with both native and non-native plants
- Multiple surveys used in assessment
 - Early Season AIS survey
 - Point-intercept survey

Onterra, LLC
Lake Management Planning

Pickerel Chain

Pickerel Lake – 477 points
Little Pickerel Lake – 133 points
Smoke Lake – 233 points

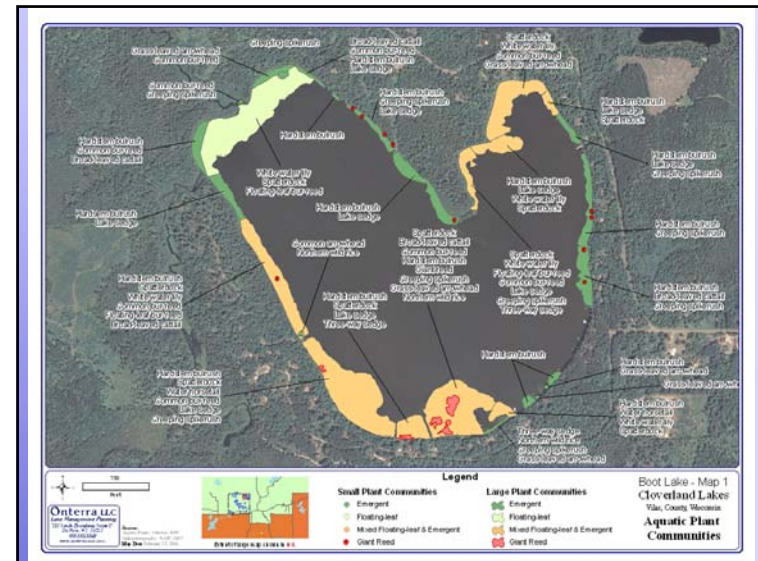


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Aquatic Plant Surveys

- Concerned with both native and non-native plants
- Multiple surveys used in assessment
 - Early Season AIS survey
 - Point-intercept survey
 - Aquatic plant community mapping

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Fisheries Data Integration

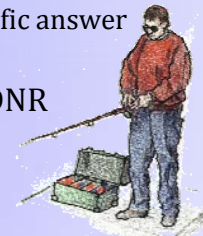
- No fish sampling completed
- Assemble data from WDNR and others
- Fish survey results summaries (if available)
- Use information in planning as applicable
 - Aeration & fish kills will be discussed



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Stakeholder Survey

- Standard survey used as base
 - Planning committee potentially develops additional questions and options
 - Must not lead respondent to specific answer through a “loaded” question
- Survey must be approved by WDNR



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Shoreland Assessment

- Shoreland area is important for buffering runoff and provides valuable habitat for aquatic and terrestrial wildlife.
- Assessment ranks shoreland area from shoreline back 35 feet
- Assess shoreland development and habitat
 - Coarse woody habitat

Urbanized



Range →

Natural



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Lake Management Planning

Planning Process

Planning Committee Meetings

Study Results (including a stakeholder survey)
Conclusions & Initial Recommendations

Management Goals
Management Actions
Timeframe
Facilitator(s)



↓
Implementation Plan

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Thank You

Many of the graphics used in this presentation were supplied by:



Wisconsin
Lakes
Partnership





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Lake Management Planning

Pickerel Chain Lakes Management Planning Project

November 2015 Update

Submitted by: Dan Cibulka, Onterra, LLC

With the help of two Lake Management Planning Grants totaling over \$34,000 from the Wisconsin Department of Natural Resources (WDNR), the Pickerel Chain Lakes Association (PCLA) is working to complete a lake management plan for Pickerel, Little Pickerel and Smoke Lakes. The lake management plan will contain historic and current data from the lakes as well as provide guidance for their management by integrating stakeholder perceptions and goals with what is ecologically beneficial for the ecosystem.

As described further below, numerous field studies are being carried out upon the chain lakes during 2015-2016. Because much of the data was collected within just the past few months, a full analysis has yet to be completed. This update intends to bring the PCLA and lake property owners up-to-date on the scientific studies that have occurred, provide some initial observations on the ecology of the lakes and project a rough timeline for the remaining portions of this planning project.

2015 Field Studies

In April of 2015, Onterra staff had their first glimpse of the chain lakes with a water quality sampling visit. The lake is sampled during the spring and fall to analyze water chemistry during the lake's mixing, or *turnover* events. When a lake turns over, many physical and chemical constituents (temperature, dissolved oxygen, nutrients, etc.) are mixed within the water column. This gives ecologists an idea of what the nutrient balance is within the lake and supports computer modeling efforts. Water quality samples were collected in June, July and August. These results help ecologists understand how the constituents behave if the lake *stratifies*. Stratification is when a lake develops two separate layers of water – a warmer, upper layer and a cold lower layer of water. During each water quality visit, dissolved oxygen and temperature profiles of the water column are collected.

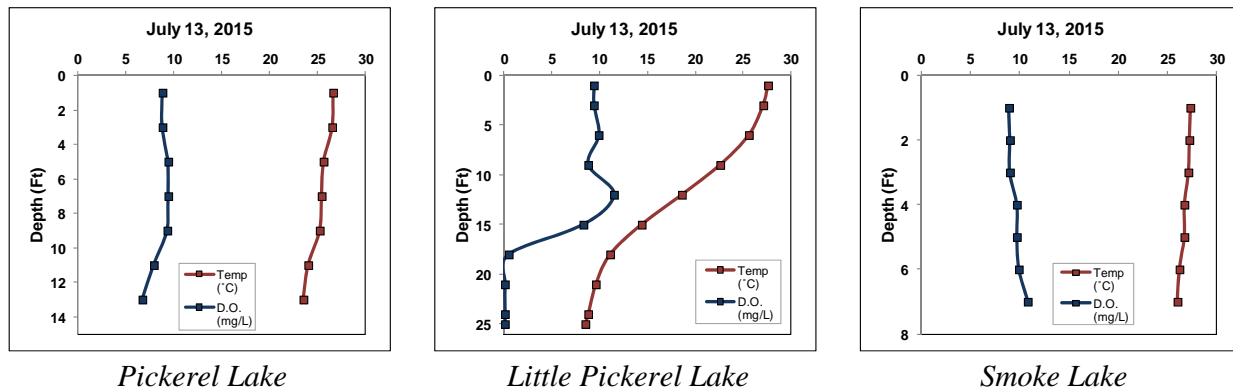


Figure 1: Dissolved oxygen and temperature profiles from the Pickerel Chain Lakes, July 2015.

Figure 1 displays the temperature and oxygen profiles collected on the Pickerel Chain Lakes during a July sampling visit. Little Pickerel Lake, the deepest of the three lakes, displayed a profile indicating a fairly strong stratification taking place between 10 and 15 feet. With this lake's depth and relatively small size, the winds moving across the lake surface are unable to mix the water column. In Pickerel and Smoke Lakes, the shallow depth ratio to surface area creates a situation where winds are able to mix the lake thoroughly. This mixing process has profound effects on the lake's water chemistry, release of nutrients from the bottom sediments, and location of fish which require oxygen for survival. Dissolved oxygen will be a critical monitoring component of this project.

All aquatic plant surveys were conducted as scheduled, first with a visit to the chain on June 3, 2015 to complete the Early Season Aquatic Invasive Species (ESAIS) survey. This survey's purpose is to search the lake for invasive species that reach their peak growth during this time (curly-leaf pondweed and pale yellow iris). On July 14, Onterra ecologists visited the lakes to complete the point-intercept survey. This is a grid-based survey designed to sample aquatic plants within the lake. Additionally, it provides an opportunity to search the lake for another Wisconsin invasive plant – Eurasian water milfoil. A third aquatic plant survey, the community mapping survey, was completed that next day (July 15). The purpose of this survey is to map the floating-leaf and emergent species that are found within the lake and are typically underestimated in the point intercept survey.

Aquatic plants were found to grow to a depth of 18 feet in Little Pickereel Lake. Aquatic plants were encountered in the deepest areas of Pickereel Lake (14 feet) and Smoke Lake (8 feet). During all surveys, no aquatic invasive species were observed. Many interesting native species were observed however. Members of the Muskgrass family (*Chara* and *Nitella* spp. – Figure 2) were most prevalent in all three lakes. Muskgrass is actually a type of algae (macroalgae) that resembles a plant structure. It is often short in stature and covers the lake bottom, growing in scattered to dense mats. The muskgrass grouping is quite diverse; some are a translucent green while others can become covered in calcium carbonate, creating a gritty, white covering to the structure of the macroalgae. It is a beneficial species to a lake environment, providing structure for small fish and invertebrates while serving as a food source for waterfowl and also stabilizing bottom sediments from resuspension.



Figure 2. Muskgrass. Photo by Onterra, LLC.

This fall, an Onterra crew will visit the Pickereel Chain Lakes to conduct the shoreline assessment survey. During this survey, the lake's shoreline is examined and classified into one of five development categories, based upon its level of human disturbance. Additionally, areas of ecologically important habitat are identified and counted. The results of this survey may be used to prioritize areas for shoreland or habitat restoration, if the PCLA wish to pursue this.

Remaining steps

In addition to the ecological data collected from the Pickereel Chain Lakes, sociological data will be collected from the people who use and care for the lakes. This is currently being approached in the form of a stakeholder survey, which was developed by Onterra staff and a planning committee comprised of PCLA volunteers. A postcard advertising the survey was distributed on November 2nd to all PCLA members as well as non-member riparian property owners. Data will be collected through an online survey, though a paper version of the survey will be available by request.

All project components are currently on schedule and proceeding as planned. This winter, Onterra will be sorting through the immense amount of data that has been collected. Following data analysis and report creation, Onterra staff and a PCLA planning committee will meet next spring/summer to discuss the project results and begin creation of management goals the PCLA will pursue to manage their lakes in both a recreationally enjoyable and ecologically sound manner.



Pickerel Chain of Lakes Assoc.

**Pickerel Chain
Management Planning Project
Planning Meeting I
June 6, 16**

Tim Hoyman, CLM
Onterra LLC
Lake Management Planning


Study and Plan Goals

- Collect & Analyze Data
- Construct Long-Term & Useable Plan



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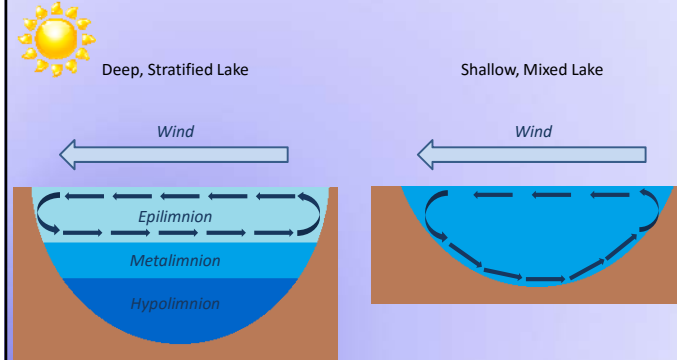
Wisconsin Ecoregions



Northern Lakes and Forests
North Central Hardwood Forests
Driftless Area
Southeastern Wisconsin Till Plains
Pickerel Chain

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Lake Management Planning

Wisconsin Lakes Classification

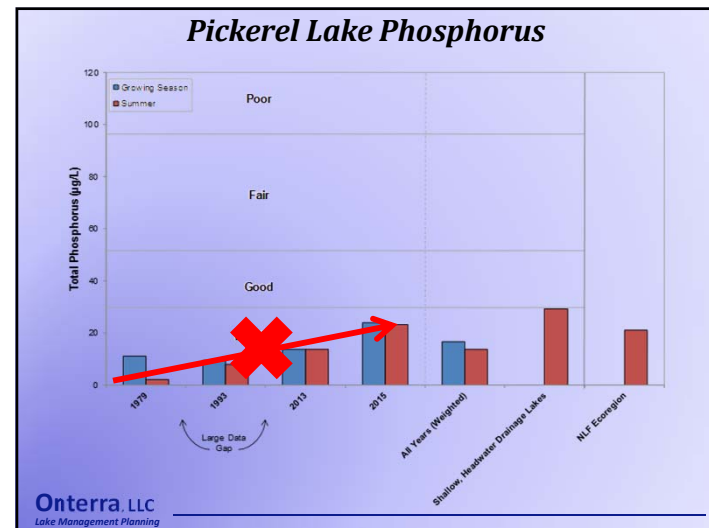
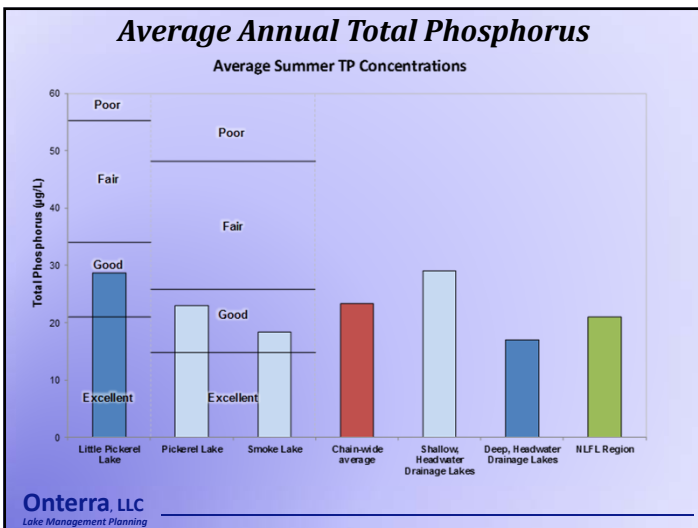
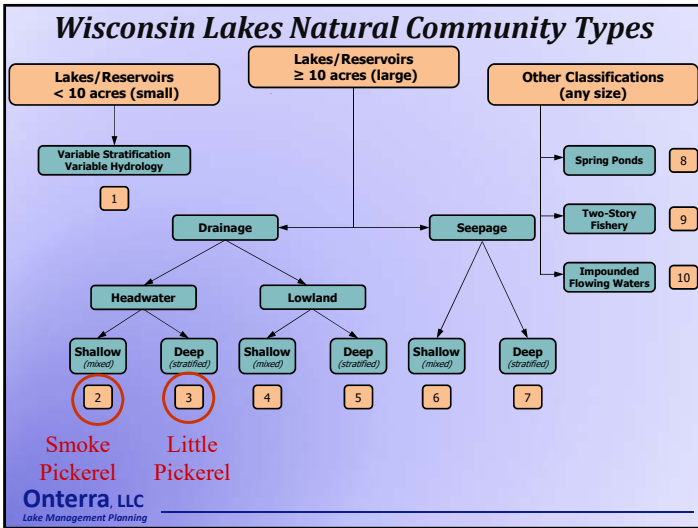


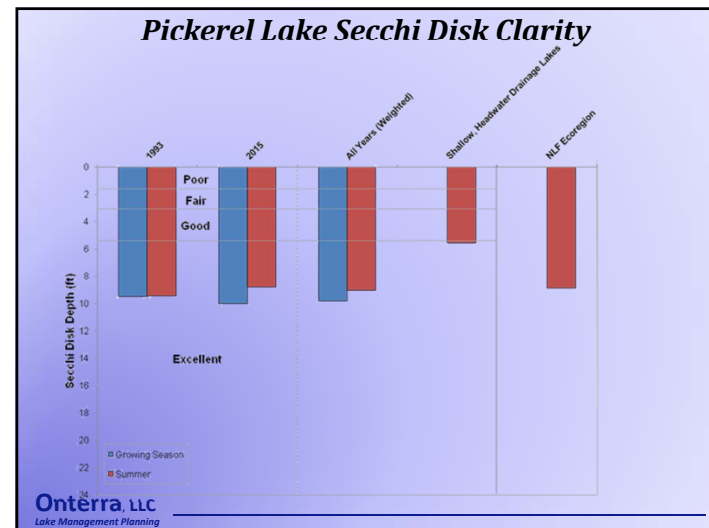
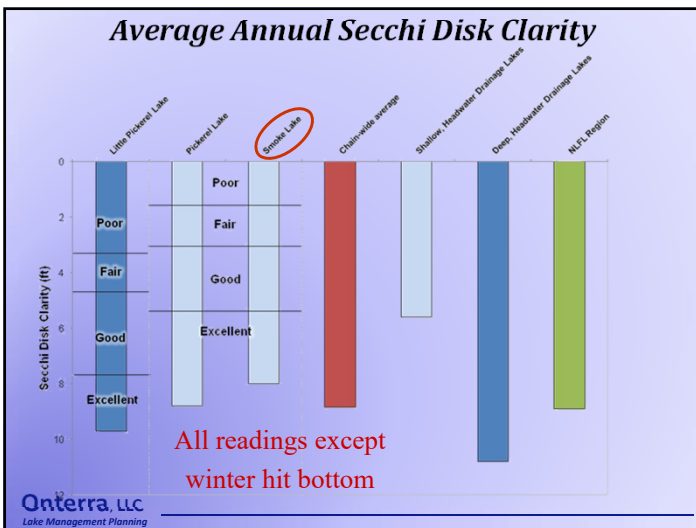
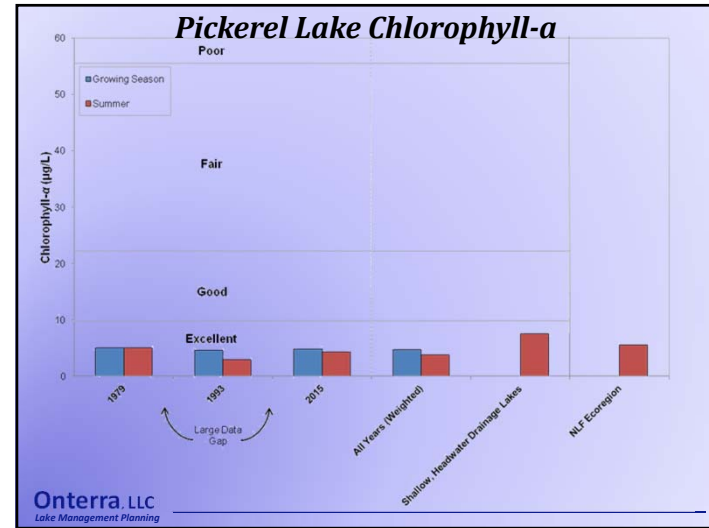
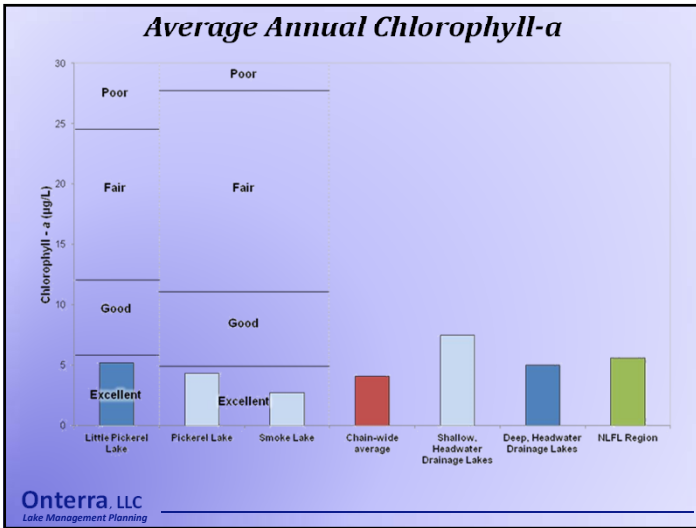
Deep, Stratified Lake Shallow, Mixed Lake

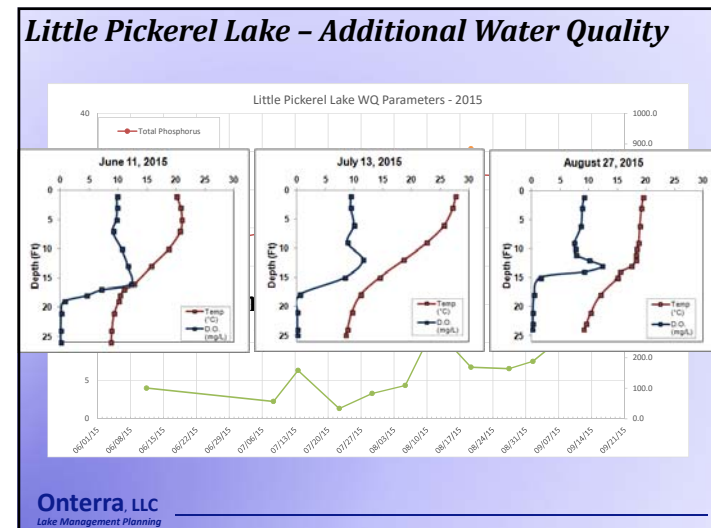
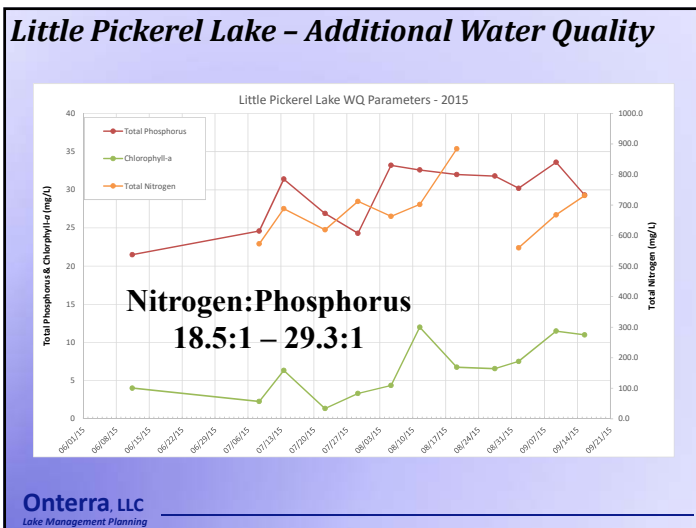
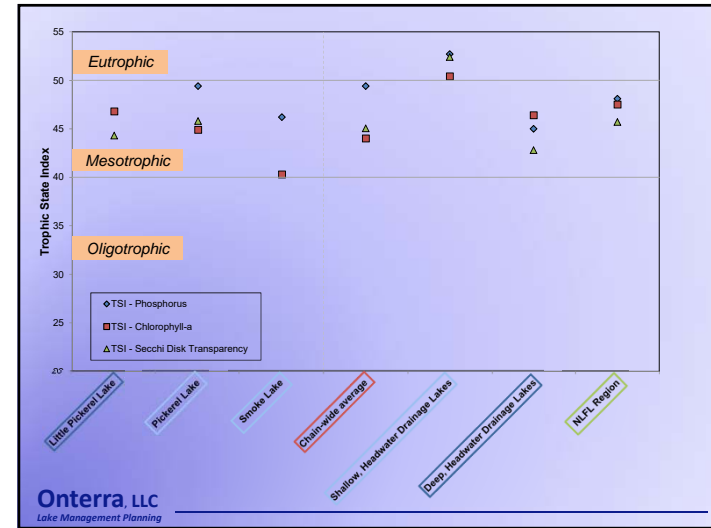
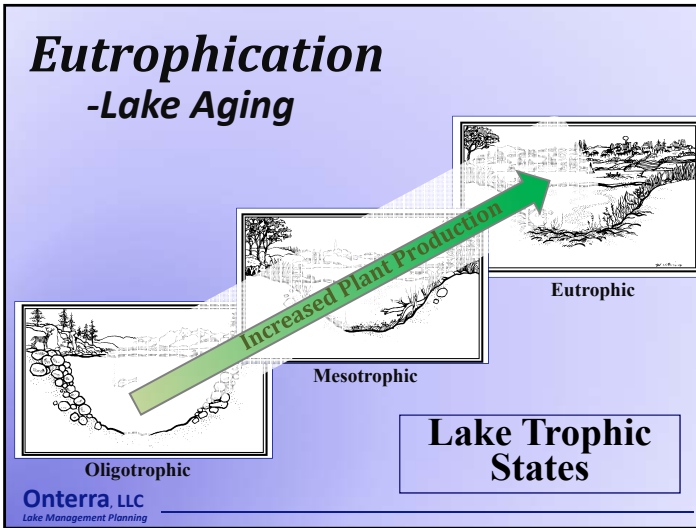
Wind Wind

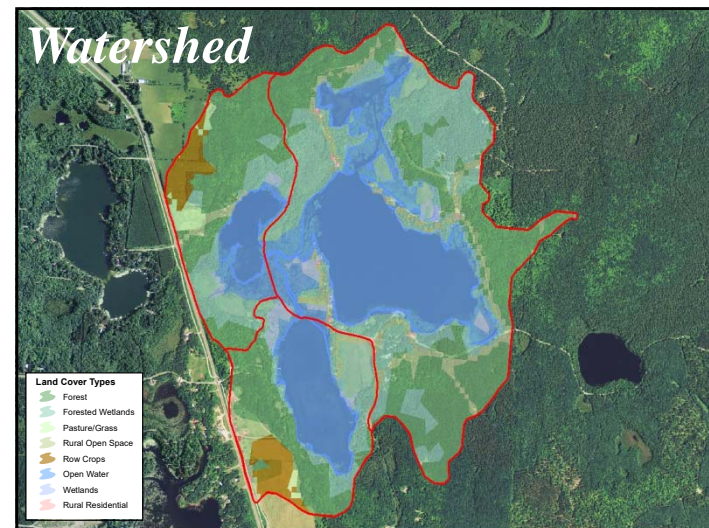
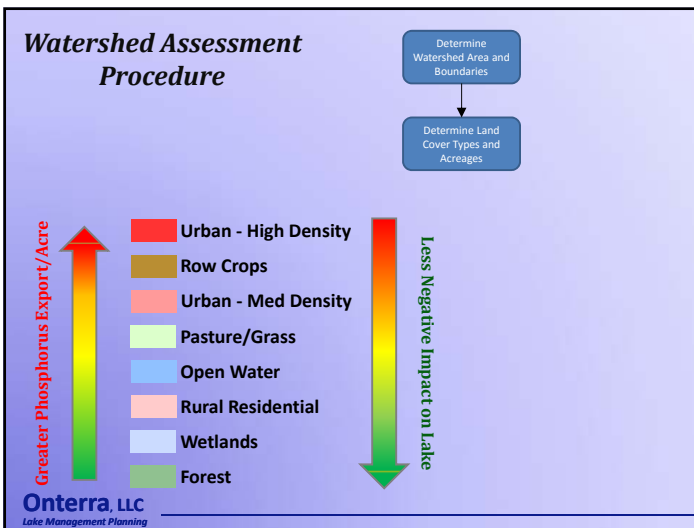
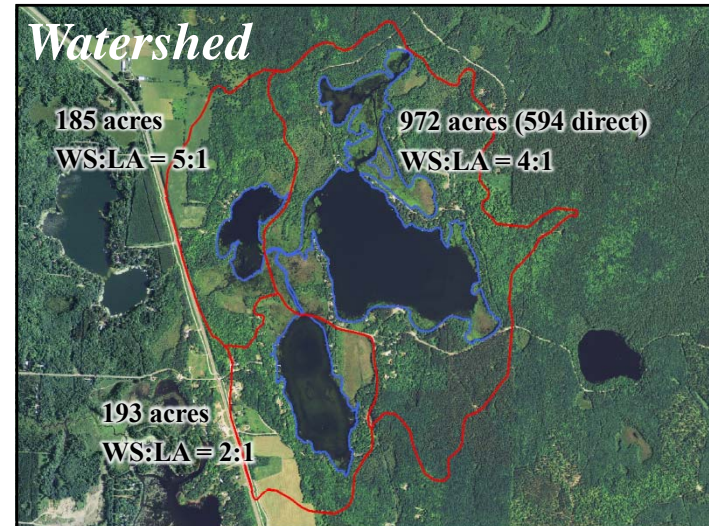
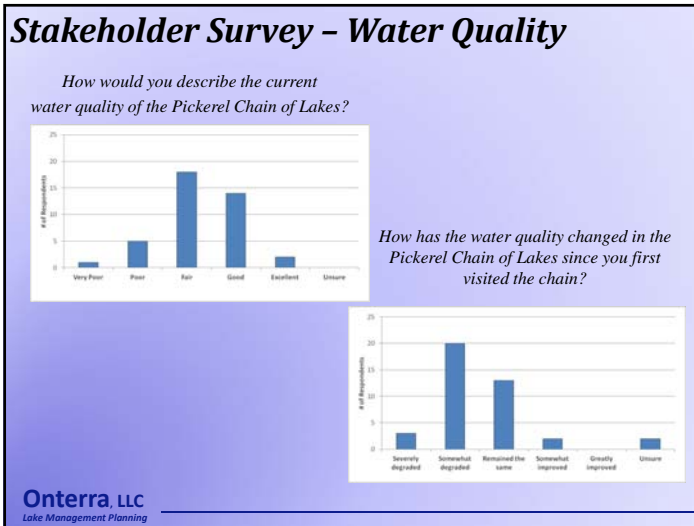
Epilimnion
Metalimnion
Hypolimnion

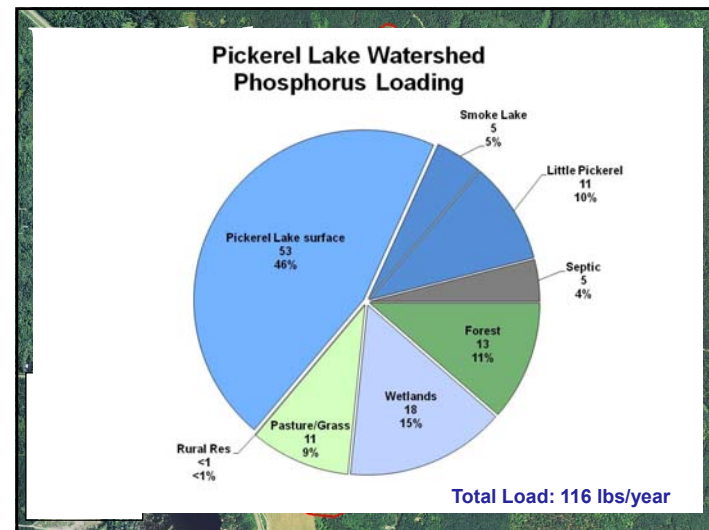
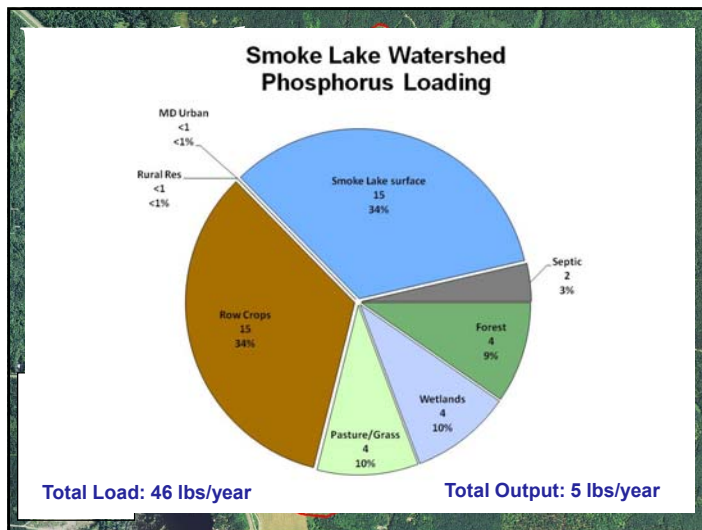
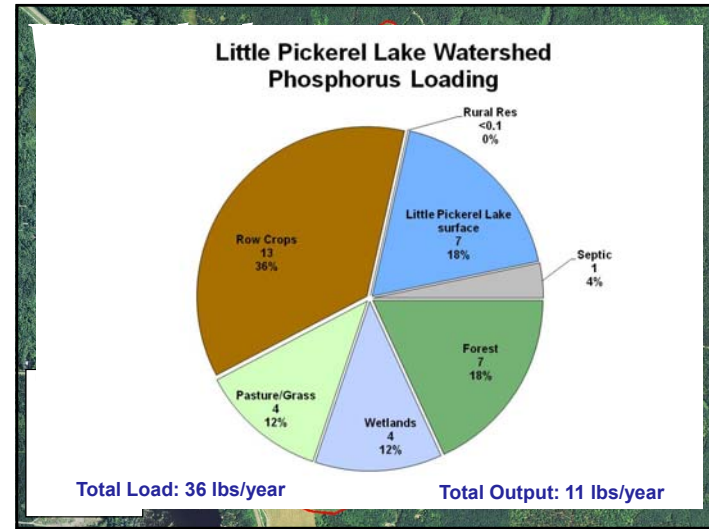
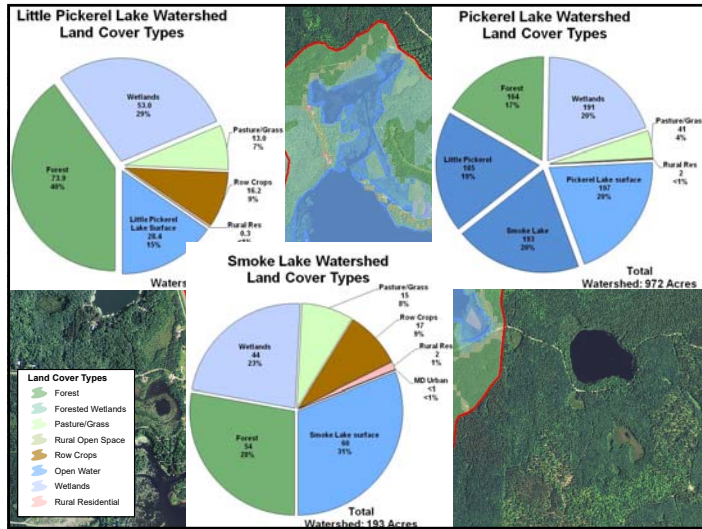
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Lake Management Planning

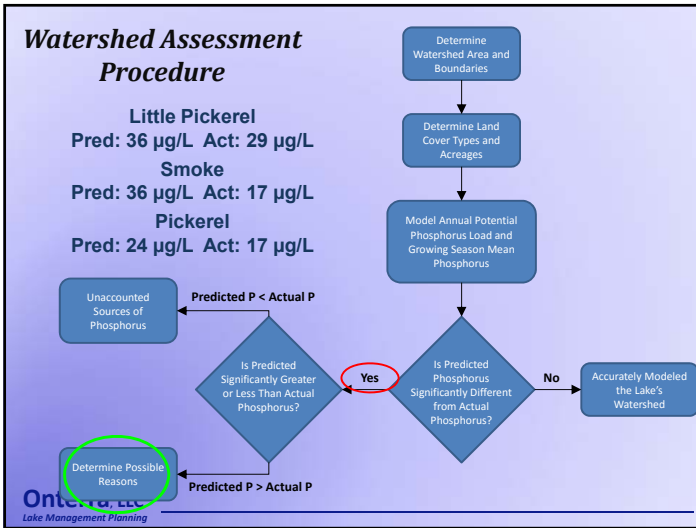












Shoreland Assessment

- Shoreland area is important for buffering runoff and provides valuable habitat for aquatic and terrestrial wildlife.
- It does not look at lake shoreline on a property-by-property basis.
- Assessment ranks shoreland area from shoreline back 35 feet

Urbanized

➔

Natural

Range

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 Lake Management Planning

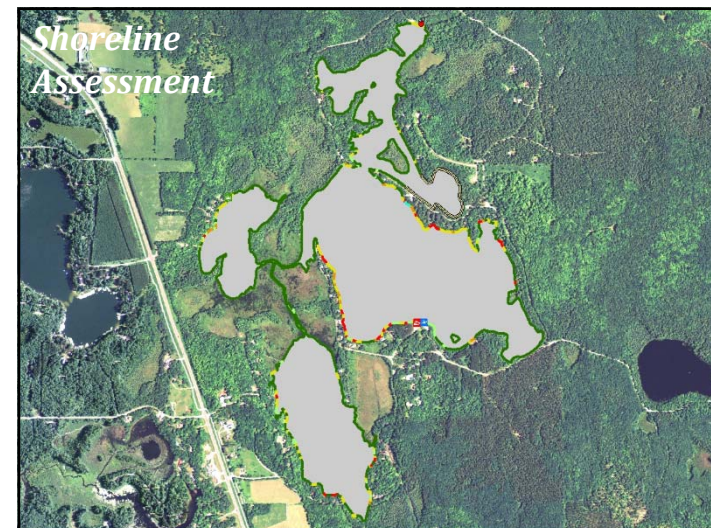
Shoreline Assessment Category Descriptions

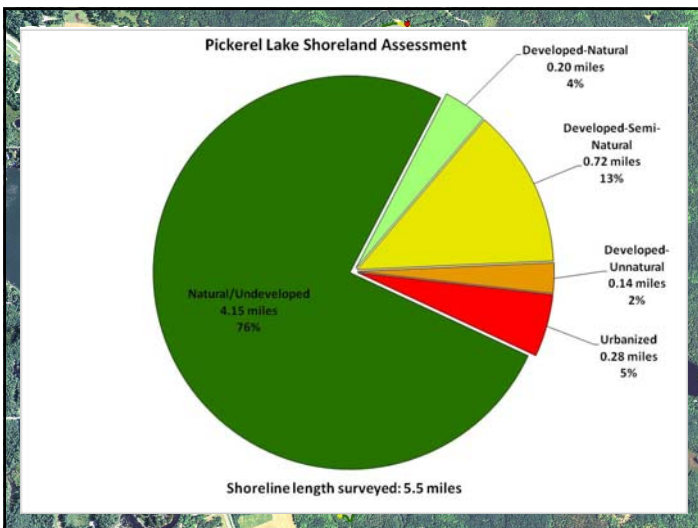
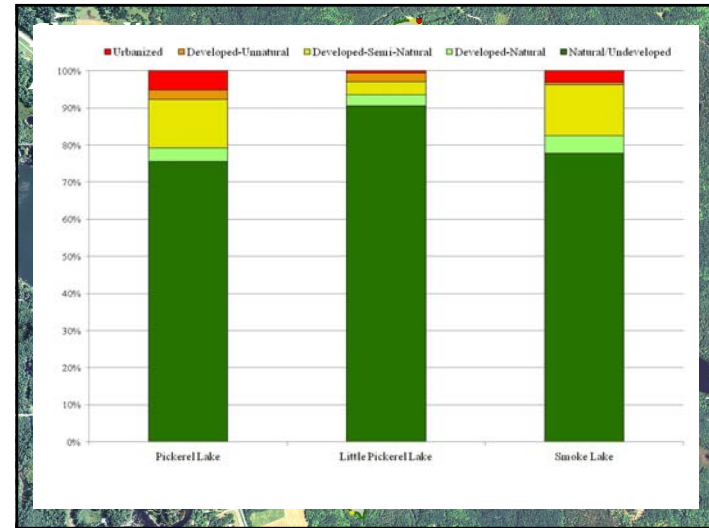
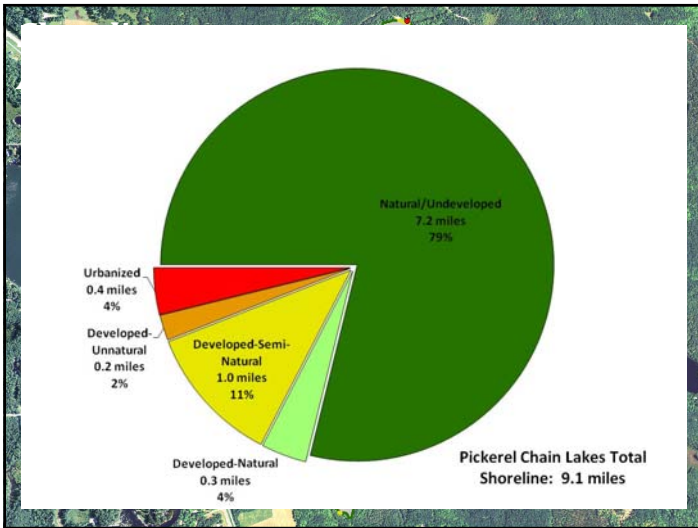
➔ More Natural Habitat

Urbanized	Developed-Unnatural	Developed-Semi-Natural	Developed-Natural	Natural/Undeveloped

➔ Greater Need for Restoration



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 Lake Management Planning



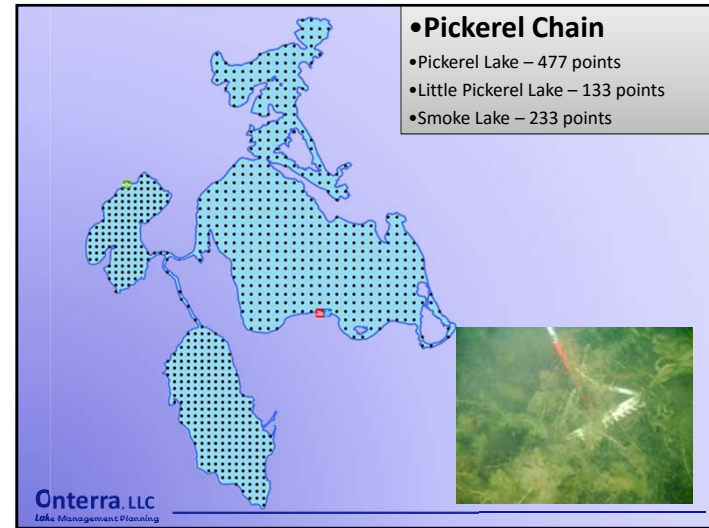
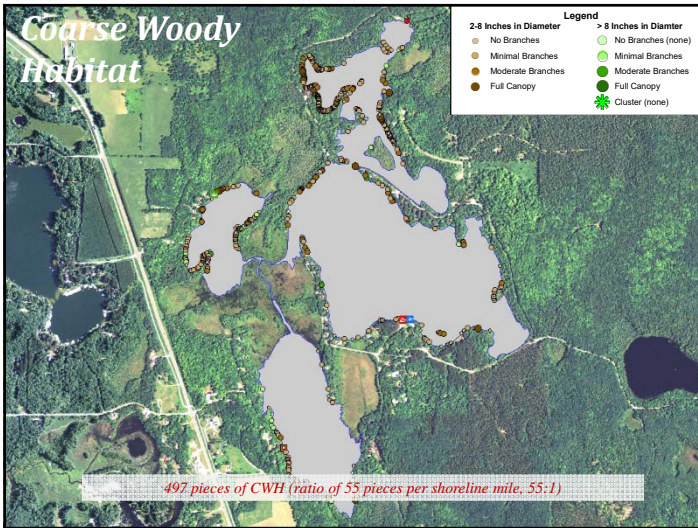


Coarse Woody Habitat

- Provides shoreland erosion control and prevents suspension of sediments.
- Preferred habitat for a variety of aquatic life.
 - Periphyton growth fed upon by insects.
 - Refuge, foraging and spawning habitat for fish.
 - Complexity of CWH important.
- Changing of logging and shoreland development practices = reduced CWH in Wisconsin lakes.
- Survey aimed at quantifying CWH in system.

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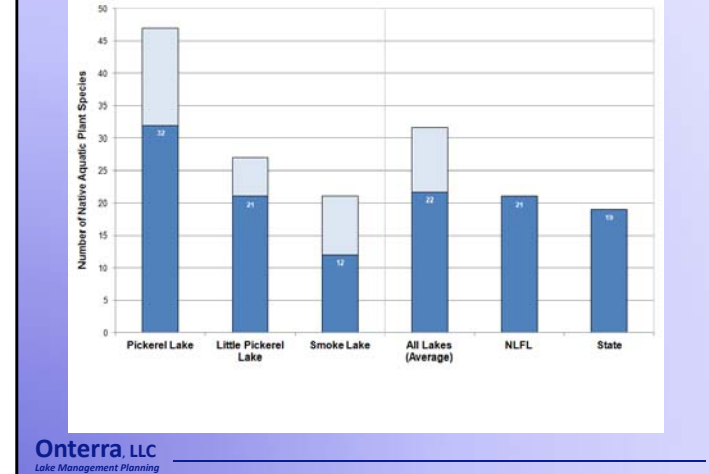


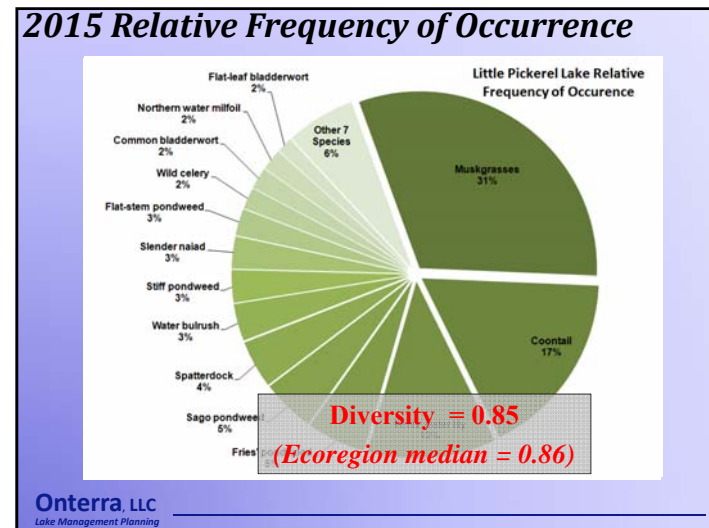
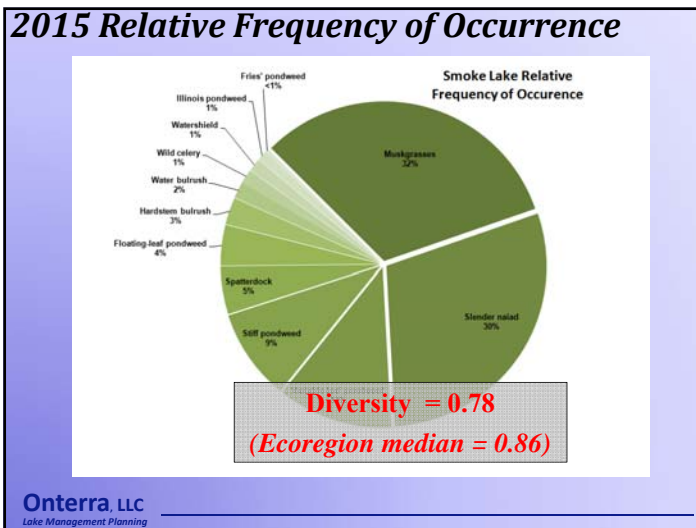
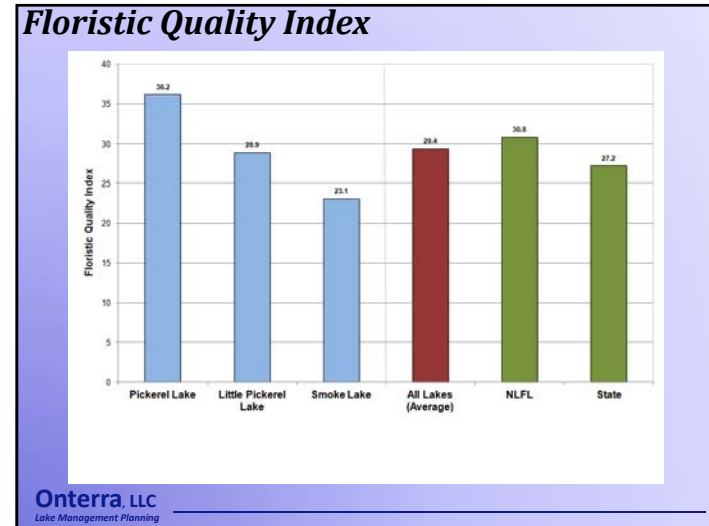
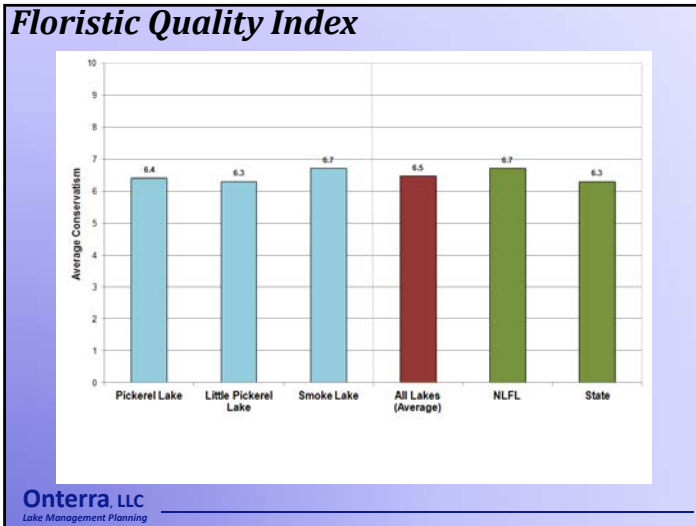
Species List

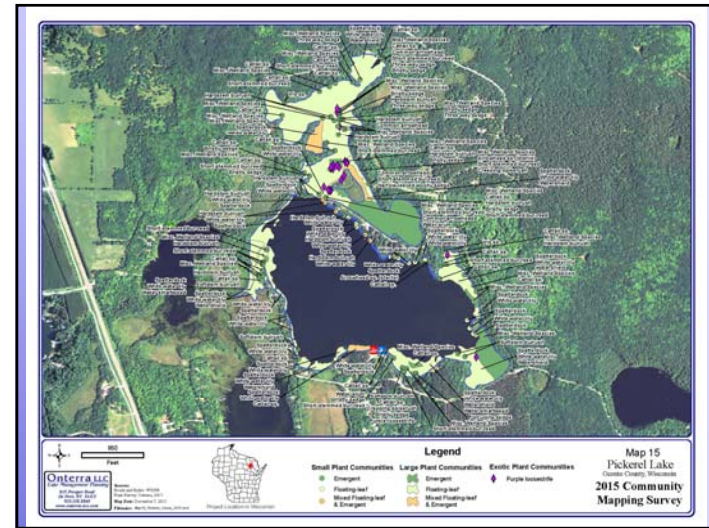
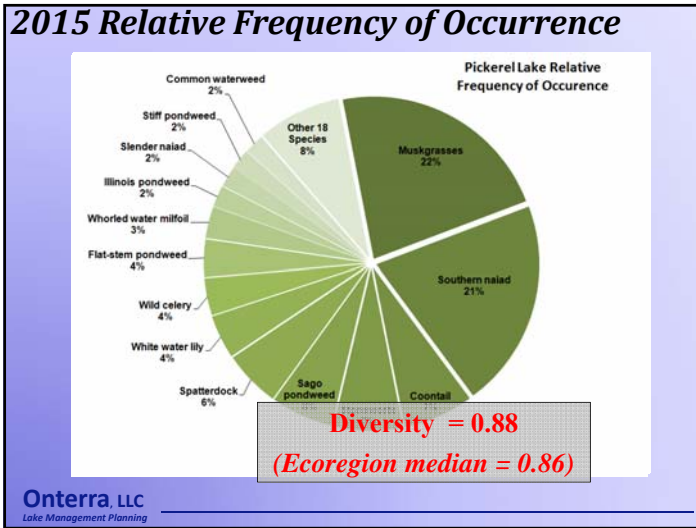
- 53 Native Species
 - 33 on PI Survey
 - 20 Incidentally found
- 1 Non-native plant
 - Purple Loosestrife

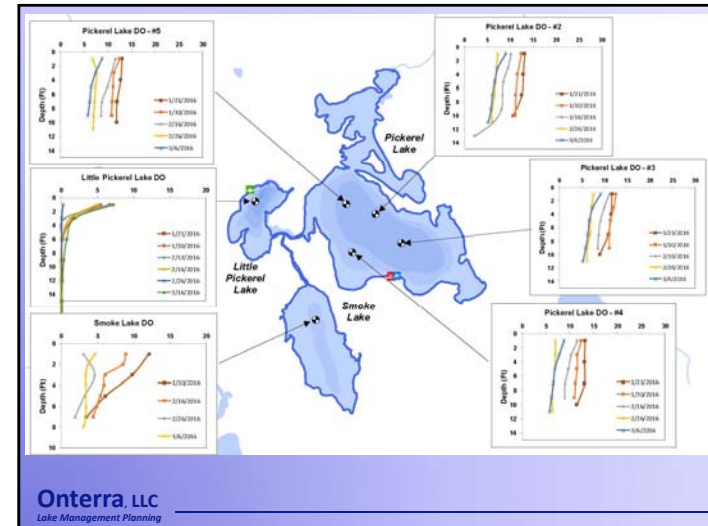
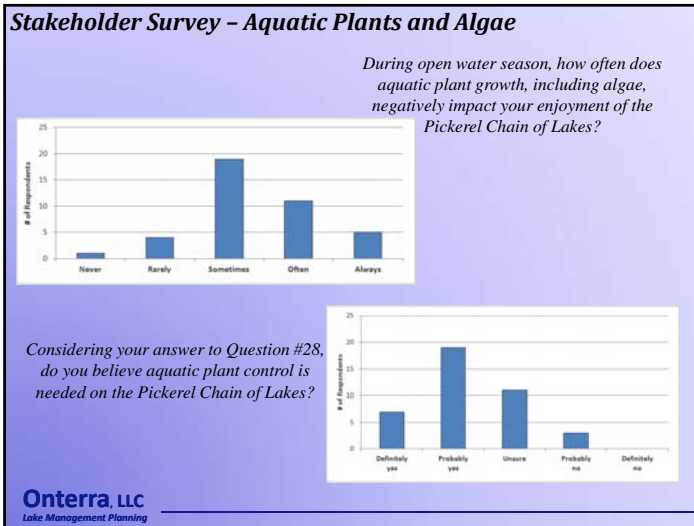
Growth Form	Scientific Name	Common Name	Coefficient of Conservation (C)	Pickrel Chain Lakes	Other Lakes
Emergent	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
	<i>Carex lasiocarpa</i>	Wetland sedge	3	X	X
Submersed	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
	<i>Potamogeton amplifolius</i>	Largeleaf pondweed	3	X	X
Silt	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X
	<i>Utricularia intermedia</i>	Bladderwort	3	X	X

Floristic Quality Index



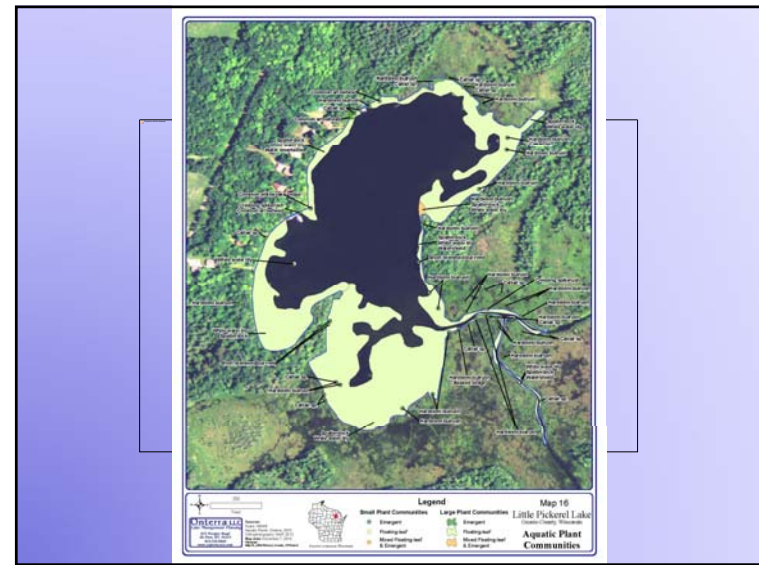
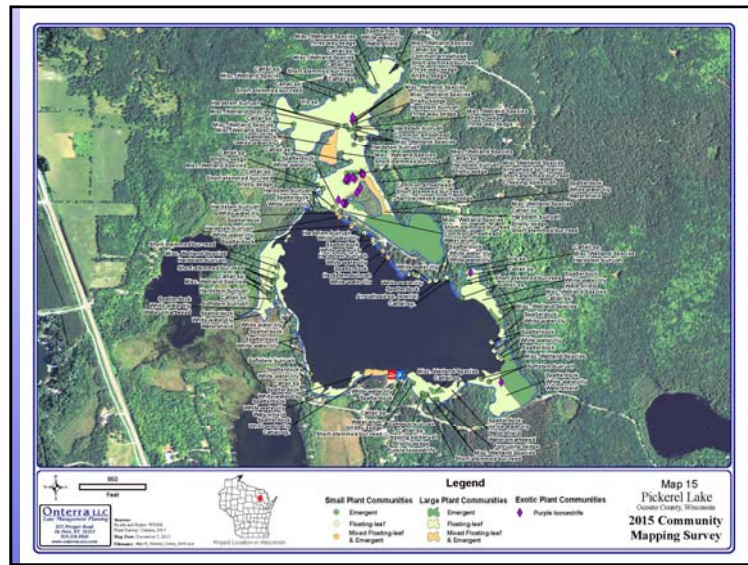


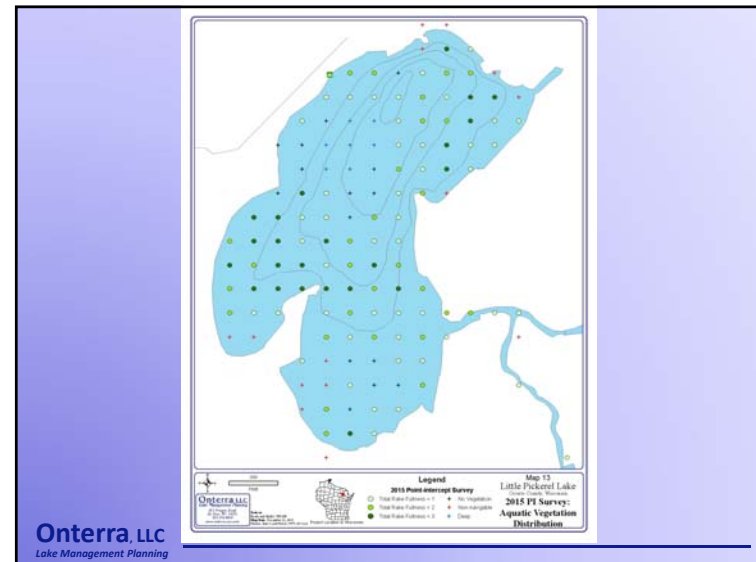
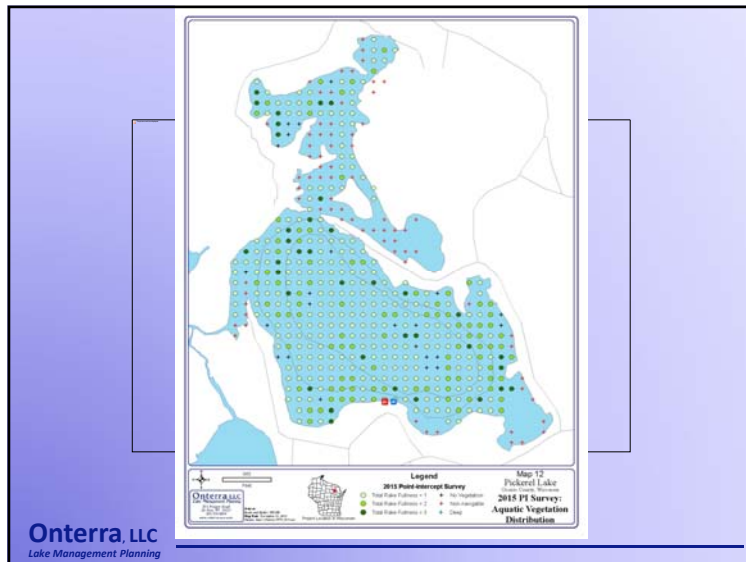


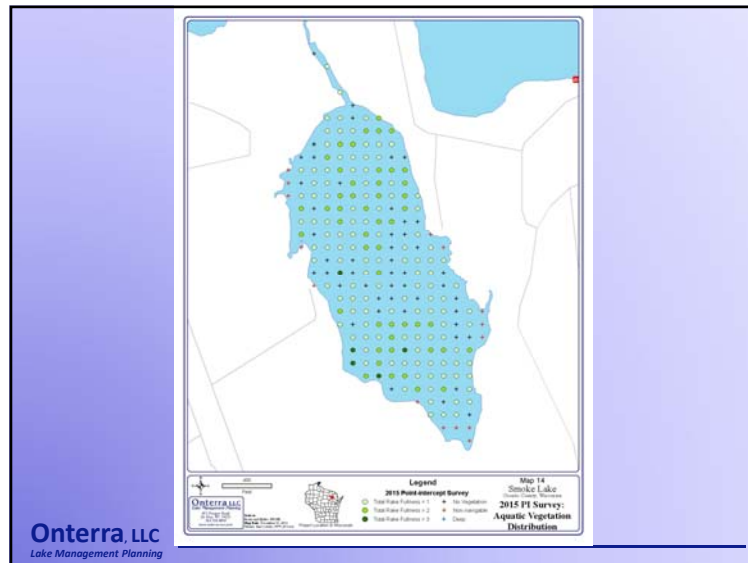


- ### Conclusions
- Water quality for shallow/deep, headwater drainage lakes is good to excellent.
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- ### Conclusions continued
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 - Based upon analysis, chain native plant community is of good quality.
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 - Conditions are optimal for muskgrasses, southern naiad, & coontail
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 - Purple loosestrife only non-native located
 - Nuisance native conditions impacting recreation?
 - Fisheries
 - Moderately productive system could sustain good fishery
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Shallow Lakes are Special

Clear State

Turbid State

**Aquatic Plants are
Incredibly Important**

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Thank You

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{Page reference is as follows: Pg X (Y) - X is the report page; Y is the page that shows on the computer}

Pg 3 (5) The depth of LPL is closer to 26 feet than the 20 feet shown in 1st sentence on page. **Corrected**

Pickerel Lake acres looks high at 197 acres. Should the north flowage area be broke out to show how many acres this is? Are the flowage type acres between the three lakes also included in the acres? If it is should this also be broken out or noted as such? **Changed to 185.** When we first start a project, we obtain the latest aerial photography for the area and use it to create a new lake outline in our GIS (Geographic Information System – our mapping software). We start with the WDNR outline of the lake available on their GIS layer, which was created years ago and at a much coarser scale. Our outline is more accurate because of the newer orthophotography and because we are zoomed in much closer to the lake and following the outline on the photo at a much finer scale. We create this outline because our other mapping surveys rely on an accurate outline of the lake. The 197 acres is our outline of Pickerel Lake based upon the WDNR GIS layer and corresponds to the department’s Waterbody ID Code: 474900, which is Pickerel Lake and includes all water to the dam. While the 197 acres is more accurate, to avoid confusion, we will list the lake at 185. As you point out, much of the difference is in the area is north of the main body of the lake.

In the 1st P. , the carry in site on LPL is not owned by Oconto County, but is a PCLA property. **Corrected**

Pg 4 (6) Kick off meeting section: the 10-12 residents volunteered, not selected. **Corrected**

Pg 10 (12) How does LPL relate to the stratification discussion? Would it be helpful here to identify that LPL does stratify? I added the word “typically” here. This is a primer section with information regarding how we analyze the data, so we cannot cover every possible situation or we risk not having the overall, general concept understood by the reader.

Pg 13 (15) Not something to change in the report but am curious when Pickerel Lake had volunteers that collected data through the CLM network as identified in the 1st P.? It is felt the DNR may have done some earlier lake testing, but we believe There was no Pickerel Lake volunteers prior to what we collected. In my notes from the very beginning of the project, I had that Pickerel Lake once had CLMN volunteers collecting data. It may have been from Brenda. I checked the data and the '79 is from the first National Lakes Assessment and the data from the '90s is from a basin report completed by the WDNR. This has been corrected and I am glad you pointed it out.

Pg 16 (18) Should the definitions of the tropic states be referred back to Page 9 to help the reader? We are hoping that the reader read through the primer sections before each of the main sections so they can have a good understanding of the report and results. Repeating information from the primer sections would lead to an even longer document.

Pg 24 (26) Last sentence of 1st P. States updates will likely occur in February 2014. Did they occur or not? Last sentence first paragraph, please update information regarding NR115 updates in 2014. Please provide current status of NR115. Also, provide county zoning specific requirements for Oconto County. Using information from 2014 is not valid and would be misleading. This request applies to all of the following references to NR115. Please use current up to date information.....**Updated** I meant to have Jessica point out that we did not have time to complete an update of this section as Drew pointed out the very first draft we provided in June. We were working on it for all of our projects late this past summer.

Pf 48 (50) Last sentence, 3rd P. Missing the word “one” after Only. Should it read Only one of? **Corrected**

Pg 55 (57) In Pickerel Chain section, 74% say quality of fishing is good or excellent. This needs to have something added that this likely refers to the pre-fish kill status. **Added a sentence and lead off with anecdotally**

Pg 56 (58) Should there be any mention of non-game species such as bullhead, white sucker, and any other of the various minnow species within the lake? Why was this not mentioned? **The WDNR does not manage non-game fish, at least not to a great degree; therefore, the information we obtain from them does not include non-game fish information. As a result, we do not discuss non-game species either to avoid confusion and misinformation.**

Pg 58 (60) Fish stocking P. - Should the sentence be expanded to say WDNR **'and others'** may stock fish? **Added and others**

Pg 59 (61) Could add 2016 fish stocking numbers to the chart to make this current to include PCLA stocking numbers. Chip Long provided these numbers and additional information that has been integrated.

2nd P. – can we reword the statement that says the landowner must become liable for the aerator system? It is our belief that a lake association that obtains an easement will relieve the land owner of some or all liability. The statutes under 167.26 exempt an owner from liability if conditions in the statute are followed. Landowner liability is always subject to interpretation and in the end would probably be determined by a jury. Reference state statutes. **Changed up the wording.** I appreciate this advice Jim – we will use it in other reports.

Pg 60 (62) The 1st P. says Pickerel Lake had high DO levels and Smoke Lake had good DO levels. Are these the correct words to use to describe the DO levels? The Management Goal says the DO in Pickerel was “sufficient” and for Smoke it says “held oxygen”. These seems more appropriate. **Changed**

Pg 64 (66) Change name of facilitator to Aeration Committee. Also please update map of aeration system. Also Pickerel Lake aeration system was installed in fall of 2014 not 2015. Jim will provide an updated map showing a new proposed location for the aerator system and six diffusers. **This map has been updated with the association's new design.**

Pg 65 (67) Add an action step #6 to Install a Smoke Lake system in fall 2018. Monitoring winter DO section – Change 'import' to 'important \ ' in the 2nd sentence. **Added action step – corrected important**

Pg 65 (67) Change facilitator from PCLA board to Fishery Committee for the fish stocking action item **Changed**

Pg 65 (67) Under DO monitoring facilitator change from PCLA board to CLM volunteers **We added CLMN, which is the abbreviation used by the WDNR for Citizen Lake Monitoring Network.**

Pg 66 (68) - under the action steps, do we report to the WDNR annually?? And should we add a step 6 to enter data in SWIMS? Instead of adding a step 6, step 4 Should read “enter data into SWIMS and report to association annually.” **Changed.** While I did not include it in the plan, I believe Chip would like to be updated via email. I would bet that would be your plan anyway.

Second paragraph change to: “second year of operation and the beyond.” Eliminate 3rd paragraph. **Changed.**

Pg 66 (68) Under Management Goal #2 change facilitator to CLM monitoring volunteers. **Changed**

Change reporting requirements to report data in SWIMS and report at PCLA annual meeting **Changed**

-I recommend we remove the specific name of the individual and replace it with a neutral reference such as volunteer designee. Same applies for specific WDNR person. Make it neutral. People change jobs, volunteers change, etc. **We have discussed using titles in place of agency staff names (for example) in our plans internally**

and with agency staff. While we agree that agency staff does change, having a name and a number gives direct access to the area needed by the person looking for the information. For instance, if Brenda is no longer the Lakes Coordinator for your area, the person calling the number can say that they are looking for Brenda and the person answering the phone can direct her to the new coordinator. This what we recommend in our plans, but we will change it for the final draft if you wish.

Pg 67 (69) - under Action step #3 – Do we report to the WDNR or is this reporting only entering data in SWIMS? This would be in the form of a report, so it is not just entered into SWIMS.

Under the Management Action statement, should this say frequent algae blooms or periodic? I don't think frequent is correct. Change this to occasional. Changed. However, I am concerned that I am getting mixed messages from the committee on level of concern that the riparians are expressing regarding the algae blooms on Little Pickerel Lake and Pickerel Lake. Jim and Steve have expressed great concern over the algae blooms, while others believe there is not much concern. Please let me know how we want this expressed for the final draft of the plan. Please note that it is not overly important to have this expressed in this draft.

Under the 1st P. in the description, should this be more specific and say there have been outbreaks of algae growth in spot locations? Added

In the last P. – should “This project” be better explained? What project is this referring to? Should it read something like “An algae study” would document.....We need to quantify what “this project” means. This study should consider the algae issues in the chain. I changed it to study to match the action steps Added that action would initiate study to add clarity to the action. In writing this action, I tried to make it flexible so it can accommodate the final study design.

Pg 68 (70) Under the description, we do not inform people on our website as we do not have a website. Removed

Should the words “pea soup” should be expanded or better explained to when to use caution? The action of informing the people can be used to further explain “pea soup”. This is the description used by the WDNR and would be the basis for the information the association would use.

In 2nd P. are we really going to have people call the Dept. of Health Services and post warnings? This statement should be removed as it over exaggerates the situation and it too alarming. It will be addressed with general education with stakeholder's. Remove the reference to Gina.....Removed Gina and changed to the WDNR. At the second planning meeting, we discussed the inclusion of this action step and agreed it should be based upon the information that Jim had received from Gina. Please provide additional guidance here on how you would like this changed in the final draft. It is the association's call, so we will follow your direction.

Goal 3 – Under Protection grant, the word “include” should be added to make the sentence read correctly. Added

Pg 69 (71) In the 2nd P. the text refers to membership drive. Remove this paragraph. We are not doing a membership drive. Removed

Should the plan suggest we have folks attend the Wis Lakes conference each spring, or maybe change this to consider having committee members attend. Added “Committee, and other association members” in description. I agree that the association should have folks attend the meeting each year. If you would like this added as a separate action or enhanced in some other fashion, please provide additional guidance for the final draft.

Pg 70 (???) 2nd P. - add the word “the” to the end of the 2nd last sentence. (... restore “the” chain.) Added

Pg 72 (74) Is the Lakewood Chamber of Commerce include Townsend businesses? If not should this be eliminated or changed in the chart? Remove Lakewood Chamber of commerce. **Did not remove – there is no Townsend Chamber of Commerce – Townsend is included under Lakewood – verified on their website.**

Pg 73 (75) The Description under the Goal to place buoys says we will provide information at kiosks at boat landings in the 2nd P. Change the last sentence to kiosk at Pickerel Lake boat landing. The Association is not planning to place a kiosk at the LPL landing site..**Changed**

Pg 78 (80) Action step 4 – change the word “are” to “at” **Changed**
Dam was reconstructed in 2015 not 2014. **Changed**

Pg 79 (81) Should a year be added to the Lake Water Quality article to identify when the testing being discussed was completed? **Added**

Pg 87 (pg 1 Pickerel LK) under article 8.1 Pickerel Lake, the 1st sentence shows the depth at 10 feet and size at 176 acres. Not consistent or with earlier data or the following chart? The chart that follows shows the max depth at 14 feet and acres at 197 acres. **Fixed**

General comment – many places the report uses abbreviations. I think it would be a good idea to have an appendix that shows the abbreviations used in the report to help readers know what the abbreviations are or can easily find the answer. Please include an appendix of definitions of abbreviations with a short explanation. This makes for a more user friendly document. **We do not include an abbreviations list within our plans. The units we are standard and we define acronyms on their first occurrence. If there are acronyms that are not defined, please let us know. This was also discussed over email with Jim and Drew and resolved.**

Pg 101 (pg 1 LPL) 1st P. and chart show max depth at 20 feet. (should be 26 +/- **Changed**

Pg 106 (pg 6 LKPL) was any b-g algae bloom noticed in LPL in summer/early fall? (see 2nd P.) **I have adjusted this concept within the document.**

Pg 117 (pg 1 Smoke) – 1st P. shows max depth at 5 feet. Chart shows 8 feet, which is correct I believe. **Changed**

Pg 119 (pg 3 Smoke) Secchi depth in 2015 hit bottom always. Not the same in 2016. Report says measurements cannot be used in any analysis. Will the 2016 data be different and identify any issue here? **Added a couple sentence in main body of the report and Smoke Lake section**

Pg 122 (pg 6 Smoke) 1st P. suggests long term WDNR monitoring protocol, including PH, alkalinity, and calcium. Should this be included in a long term management goal?? **It should not. These words are mentioned in this section for each of the three lakes and are there for general information. When the management plans are updated in the future, these parameters can be measured again. If we found something odd with any of them, we would have recommended that something be included in the plan for further assessment.**

Pg 123 (pg 7 Smoke) 1st P., 1st sentence says acres = 60. Earlier data shows 51. What is correct? I believe 51 is. **Changed**

Pg 126 (pg 10m Smoke) - 2nd P. states plants were found growing to 9-foot depth. Depth is 8 foot max.? **Checked veg data – recorded plants out to 9 feet – updated throughout report**



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Dec. 22, 2016

Good Morning Tim,

This letter is to summarize the comments we received on your draft Lake Management Plan dated Nov. 2016, for the Pickerel, Little Pickerel and Smoke Lake Chain in Oconto County. We sent this plan out via email and had hard copies available and did not receive hardly any comments from our membership. The membership had the opportunity to read and respond so I feel that the board/committee has done its' due diligence in making it available. That being said, listed below is a summary of the comments we received, most are general in nature and may or may not affect the final plan results. I did not include the comments you received from Chip Long, WDNR Fisheries Biologist, as he sent them directly to you and I think that between the email exchanges, his concern was addressed. I did send a copy of the plan to Ken Dolata, Oconto County Conservationist, as his department will be integral to helping us with our implementation goals. His comments are also included below.

General Comments:

1. The plan is very scientific in nature (as it should be) but these details will lose the attention of the lay reader quickly. Ken asked if we could have a summary sheet of the plan that would list a brief description of each lake, the issues concerning it, then followed by the overall action plan (chapter 5). Sort of a guide for use of the Lake Management Plan. I would agree with this as I have seen plenty of lake management plans, watershed plans etc. developed over my time in the non-point source world that are not user friendly. I realize that you have to complete the plan per WDNR requirements but keep in mind who will be the actual implementer's of the plan. A short concise "cliff notes" version of this plan may have generated more responses from the lake property owners. This being said, it may be too late in the process to have this developed and we do not want to delay this plan any longer. Just a comment that I had to include.

The summary and conclusions section does provide a summary of the findings, but to gain a full understanding, the reader must be willing to read and study the main report sections. The report sections are written for the client and within each section there is a primer section that lays out the basics of the component being reported upon, the importance of the data, and how the data are analyzed. A lake ecosystem is complicated, so the reader may need to study the document a bit and maybe even re-read portions. Attempts in the past to provide more concise reporting has always lead to questions not being answered in the management plan. The management plan is the final deliverable of the project and will be used as a reference, so it needs to be as complete as possible and with a bit of study, answer as many questions as possible. Producing a parallel document that would be greater than the summary and conclusions section, but a cliff notes to the primary plan, again would be very difficult to create, and would drive the cost of the project even higher.

The implementation plan intentionally includes extended descriptions with references to the main report sections as necessary. Our aim is to provide sufficient information regarding each goal and action that in the event a person only reads the implementation plan, that will at least understand why the goal and action were included. Some groups distill

the implementation plan section to just the goals and actions and include that in a newsletter or as a handout at their annual meeting.

2. The concern over increasing shoreline development was also a comment that we received from our membership. "Shoreline development has increased a lot over the last few years, leading to the runoff of grass clippings and other debris." I would recommend that this concern be specifically called out in Management Goal 6, maybe just a sentence or two. Although in your description you state that the watershed is in "very good condition" a simple mention that increased urbanization of the shoreline may change this may give us the catalyst to address these concerns. Funding for shoreline restoration on is easy to come by with multiple source of funds available to address it, but it needs to be clearly shown as a need in the Lake Management Plan.

The actions contained in Goal 6 cover this important topic well. Further, education regarding shoreland restoration, septic system maintenance, etc. are called for within the second action of Goal 3 as part of the creation of a PCLA Education and Communication standing committee.

3. How does the Management Goal 5 reduce boating impact on Pickerel Chain of Lakes and how does this then affect water quality? This management goal does not clearly identify the concern that increased boat traffic in slow no wake areas affects habitat and may re-suspend sediment deposits on the lake. The goal clearly states what we can do but does not clearly state why we need it in terms of water quality protection i.e. slower traffic means lower wave heights and less shoreline and lake bottom degradation. Given that the lakes are all access by one channel system in the center of the chain, this may be more of a concern that we originally thought. A simple statement indicating what the problem is may suffice to address this concerns.

Text has been added.

4. On page 72 next to Ken Dolata- their role should be changed to provide technical assistance and education.

Change made.

That should pretty much be it; the few comments we did get were general in nature and should not change the plan in any major way. Otherwise, we are satisfied with the plan and are looking forward to its completion. Please let me know if you have any questions. Thanks for all your efforts with this and with us. I can appreciate the efforts it takes to work with lake property owners.

Happy Holidays,

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