

**Robert August – Chetek Lake, Barron County (923 acres, 22 feet maximum depth). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

There have been no overall changes in water quality on Chetek Lake. Generally, the lake has good clarity in the spring, algal blooms in the summer and then good clarity again in the fall.

The aquatic plant community is cyclic – there are years with lots of plants and years when there aren't many. Plants are at different densities throughout the years. We have a plant harvester on the lake to cut navigation channels into the lake.

***What changes have you seen on your lake in the last 20 years?***

All of the desirable property has been developed, there is no real estate left on the lake, only wetlands and those areas that can't be developed. There is more fishing pressure on the lake, especially ice fishing.

***How do you use the data that you collect?***

The data is shared with the Chetek Lakes Protection Association. The data was used in a comprehensive lake study done by Barr Engineering that explored nutrient levels, water levels and the science of the lake. The study results encourage property owners to have native vegetation on their shoreline. I collect the data for future use of our resources, for future generations to use. We have to think about tomorrow.

***Why did you decide to monitor water clarity?***

I am volunteer #22, one of the first ones trained. We moved on to the lake in 1984 and I was interested in maintaining good water quality.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

The Chetek Lakes Protection Association is very proud of the spawning reef that was placed in the lake and the program for stocking walleye. We place signs with the fishery information and place and maintain Aquatic Invasive Species signs. We also are promoting natural shorelines in order to preserve water quality.

The Association also cooperates with the DNR fisheries biologist in placing 30 to 60 fish cribs a year.

***What accounts for your longevity as a volunteer?***

There isn't much glory in being a Citizen Lake Monitor but you do it for the lake. If we can help scientists get a handle on lake chemistry, Lake Chetek should be in good hands for a long time to come. We have to be responsible for our natural resources and realize that all the things that we do impact our lake. We can keep heaping abuse on our lake, but eventually, something is going to happen. Maybe my monitoring can help keep that from happening.

**Don Bayer – Little Crooked Lake, Vilas County (153 acres, 20 feet maximum depth) – began monitoring in 1992**

Don Bayer collects water clarity information on Little Crooked Lake and collected water chemistry samples on the lake from 1994 until just last year. Don and his wife were instrumental in the formation of the Little Crooked Lake Association in the early 90's. The Lake Association was formed as a way to resolve water level issues on the lake. Don has monitored Little Crooked Lake for invasive species for many years. Don enjoys travelling and gardening. He spends his winters at his home in Kentucky.

***Why did you decide to monitor water clarity?***

My Wife and I purchased our property on Little Crooked Lake in 1976. We loved the lake from the start and I wanted to protect the purity and health of the lake. We consider it a treasure, a gift from God.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Yes. We are experiencing algae blooms earlier in the summer. Algae blooms start in mid-August and come and go through September.

***What changes have you seen on your lake in the last 20 years?***

The shoreline has changed. The birch trees have died and fallen into the lake. The birch is being replaced by balsam fir.

***How do you use the data that you collect?***

I share the data with members of the Lake Association at our annual meeting. The data is available to everyone on the CLMN web site.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

The return of the nesting loons is always wonderful. This year we are working with Mike Meyer to place a loon nesting platform. We are hoping the loons will use the platform and have a nesting success that they haven't had for the last few years because of fluctuating water levels. We have seen more interest from our lake neighbors in protecting the shoreland and restoring native vegetation.

We have a wonderful group of people who live on the lake, everyone knows each other and we all love the lake.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

There is one lake resident, not a member of our lake association, who removes the beaver dam on the lake. This dam tends to keep the water level constant. When the dam is removed the water level on the lake drops dramatically.

The trash bin at the public boat landing has been removed. People visiting the lake sometimes dump trash in the adjacent woods or along the road leading to the boat landing.

***What accounts for your longevity as a volunteer?***

I love this lake and want to keep track of its health. I love the north woods and the tranquility of the lake and appreciate the water fowl and raptors.

*Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?*

Do everything within your power to protect our lakes – both the shoreland and the water.

**Ruby Braun – White River Flowage, Waushara County (133 acres, maximum depth 20 feet). Began monitoring in 1988.**

*Walt and Ruby Braun have been married for 53 years – Ruby’s husband started writing to her when he was stationed in Korea. They finally met after being pen pals for 19 months – they fell in love. Ruby loves the property, the day this interview occurred, there were fifteen turkeys in the yard. Ruby plays the flute and piccolo in the Oshkosh Community Band, and Walt, her husband, bowls twice a week. Talking to Ruby made a cold winter day seem bright, sunny and warm.*

***Why did you decide to monitor water clarity?***

I worked for the Department of Natural Resources in Madison and heard about the Self-Help lake monitoring program. I asked to be trained, and then started taking clarity measurements. I have a paddle boat and that is what I use to take my secchi readings, I am so comfortable there. In the last twenty years I have put a lot of miles on my paddle boat!

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

The water quality has not changed very much in the last twenty years. The Lake District uses a harvester and weed cutter, the aquatic plants are used for compost by area farmers. White River Flowage now has Eurasian water-milfoil (EWM), and the Lake District has used chemical treatments twice on the EWM.

***What changes have you seen on your lake in the last 20 years?***

There has been an increase in the number of houses and people living on the lake. With the increase in the number of residents there has been an increase in boating activity on the lake. My husband and I purchased the property in 1976 and moved permanently to the lake in 1990. There have been ten new houses built on the lake, about half of which are permanent residences.

***How do you use the data that you collect?***

I share the data that I collect with the Lake District. My husband is the Vice President of the White River Flowage Management District so we are both very involved in lake issues.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

We have good water quality, which is the most important thing. In 1995, the water was lowered to repair the dam. It was fascinating to see what was on the bottom of the flowage – we found boats and anchors.

One day I was out in the paddle boat and I saw a fire rainbow – I hurried home to get my camera but it had disappeared – I hope to see another one.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

Eurasian water-milfoil was identified on the flowage in 2002, and since, there have been two chemical treatments. Boat traffic has increased, especially near shore, which tends to fragment the plants, especially the EWM.

***What accounts for your longevity as a volunteer?***

Walt loves anything that has to do with our area lakes and I can't think of anywhere else I would rather be.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

We found this property when we were camping at the campground and fell in love with it. Every day that is warm, I jump off the pier and swim. We are a friendly group on the lake, everyone walks and visits with one another. This is our "paradise," and is everything we have ever dreamt of. We passed the love of water to our children and grandchildren. Our son says that he can lower his blood pressure just by thinking of the lake! We have six grandchildren, and they all love being here.

**Dianne Brown, Wazeecha Lake, Portage County (148 acres, maximum depth 20 feet)  
Began monitoring in 1990.**

Dianne has used her kayak for twenty years to collect water clarity data on Wazeecha Lake. Wazeecha Lake is located east of Wisconsin Rapids. On the north side of the lake you will find Bay View Picnic Area, White Beach Park, Shady Rest Picnic Area and Willow Run Park. The southern side of the lake has South Wood County Park.

***Why did you decide to monitor water clarity?***

I have lived on Wazeecha Lake all my life, it is very important to me. Collecting water clarity data on the lake seemed like a natural thing to do.

***Have you noticed a change in water quality and aquatic plants on your lake in the last 20 years?***

Zebra mussels were found to inhabit the lake about three years ago. Water clarity used to be pretty consistent at 7 to 8 feet on an average. Now, the clarity, on average, is between 10 and 12 feet. We also have curly-leaf pondweed and Eurasian water-milfoil on the lake.

Aquatic plant populations have always been pretty heavy on the lake. We used to use a harvester and water level drawdowns to control the plant population but that is no longer done.

***What changes have you seen on your lake in the last 20 years?***

Wazeecha Lake was basically a lake community twenty years ago, it hasn't changed in the composition of the housing. There has always been more residential housing here than cottages. There are a variety of parks that surround the lake.

Because of the zebra mussels, we have to wear shoes when we are in or around the water. This has always been a lake with heavy recreational use – we no longer regulate hours for recreational boating and skiing.

***How do you use the data that you collect?***

There is no Lake Association or Lake District on the lake. I share the data that I collect with the DNR and the SWIMS database. The data is used by Golden Sands RC&D and the Land Conservation office and helps to make management decisions.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

The lake has always had a lot of public access through all of the parks that are around the lake. There has always been a trail that people can walk on around the entire lake.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

The arrival of aquatic invasive species – curly-leaf pondweed, Eurasian water-milfoil and zebra mussels are certainly a disappointment.

***What accounts for your longevity as a volunteer?***

I enjoy the lake and it is important to me.

**Rick Bruesewitz – Van Zile Lake, Forest County (78 acres, maximum depth 17 feet).  
Began monitoring in 1988.**

*Mr. Bruesewitz is a professional chemist – the perfect volunteer to monitor clarity and chemistry on Van Zile Lake. Many CLMN volunteers are professionals who agree to take on water quality monitoring on their lake. Mr. and Mrs. Bruesewitz have owned the property on Van Zile Lake since 1984. The lake house is four hours from their home so vacations and visits are often coordinated with water quality sampling events. We thank Mr. Bruesewitz for his commitment and motivation, and his attention to detail.*

**Why did you decide to monitor water clarity?**

I saw a Self-Help display at the State Fair in Milwaukee and signed up. The next summer my secchi disk arrived and I was ready to start collecting data on this seepage lake. I started collecting chemistry data in 1995. I love to fish so thought it would be a good fit to find out more about the water quality on the lake.

**Have you noticed a change in water quality and aquatic plants in the last 20 years?**

There has been fluctuation in the water clarity information over the years. Average summer secchi readings decrease for a couple of years and then improve, that is why I thought I would collect chemistry samples so I would have more information in order to decipher the trend information. There is often a correlation between the weather or development on the lake and the secchi reading. There used to be more floating vegetation on the lake but that has changed. Now, there is more submergent vegetation. Water levels have been low for the last number of years.

**What changes have you seen on your lake in the last 20 years?**

About ½ of the shoreline is in forest crop so property development is limited. The properties on this lake are large enough to also limit development. There were a number of cottages built a few years ago.

**How do you use the data that you collect?**

We do not have a lake association on Van Zile Lake, but I share the information with neighbors.

**What are some of the highlights that you have seen on your lake in the last 20 years?**

Van Zile Lake is one of the prettiest lakes in Forest County. The pace is a little slower here and there isn't the development that you see in some other counties. There aren't many jet skis on the lake. It is quiet and beautiful. I have friends who fish on some of the urban lakes in Wisconsin, with more fishing and recreation pressure. Sometimes they have to wait a couple of hours so they can launch their boat – we don't have that issue in Forest County.

*What are some of the disappointments that you have seen on your lake in the last 20 years?*

On opening day, a few years ago, I launched the boat but left my keys in the car while the car was running. Someone had to come from Antigo to jimmy my window so I could get the keys out and shut off the car! I am not disappointed about anything having to do with water quality or the quality of life on the lake. We don't have many of the problems that face some other Wisconsin lakes.

*What accounts for your longevity as a volunteer?*

I love this lake and I enjoy collecting the water quality information. I am a chemist so I find the results of the testing fascinating, especially the dissolved oxygen testing. In order to last for twenty years as a volunteer you need to be motivated. The citizen lake testing program has improved through the years as well – lake summary reports are mailed out to volunteers more quickly so we can see the results of our efforts. Being a clarity and chemistry volunteer on a lake takes a fairly large time commitment but I am motivated by being able to see the trends in our water quality.



**Mary Jane Bumby – Green Lake, Green Lake County (7346 acres, maximum depth 236 feet). Began monitoring in 1986.**

*Have you noticed a change in water quality and aquatic plants in the last 20 years?*

I grew up in the area and spent more than 40 summers on Green Lake.

In 1971 two non-native plants - Eurasian water-milfoil and curly-leaf pondweed were found – and they are still here. The District has plant data that goes all the way back to 1921, so we can compare plant densities over time. Green Lake District has developed a harvesting program which has been updated and modified over the years. The District Harvesting Committee became aware of the correlation between aquatic plants and the fishery resource and made modifications so plant harvesting starts after spawning ends.

We have United States Geological Survey monitors at two stations within the watershed. One station monitors runoff from 50% of watershed and the other monitors runoff from a 3-square miles area. This 3-square mile drainage area is the “worst” rural stream that USGS monitors in the state. Non-point source is the culprit.

The east side of the lake (Silver Creek) is a marginal housing area due to wetlands. There were lots of carp in this area. Carp were removed and the plants came back. Now the plants are so thick they are harvesting this area. We are again finding native minnows under the lily pads in this area.

I have been looking at the microscopic plants and animals since 1971. In 1971, there were green algae “scums” (Spirogyra and other algae) on the surface of lake. We are not seeing that now. Aphanizomenon (another species of algae) was thick in the 70s’s but has not been seen over last 15 years. Blue-green algae come in unless we are in a drought year and or have a lot of runoff from rain. In drought years the water is clearer. In rainy years the water is murky.

Macrophytes (plants) densities are down this year as compared to few years ago when they were thick in swimming areas and around piers --- but that varies from year to year.

I have learned so much about daphnia – they clear up the water early in the spring.

***What changes have you seen on your lake in the last 20 years?***

Best secchi disk reading was 50 feet. That is a record for Wisconsin.

Other changes in the watershed include development of farm land into residential land. More areas of the lake are sewerred. There are still many on site septic systems and holding tanks. Several developments are static and not moving ahead right now. Prices are high and there are lots of rules and regulations that apply to these properties. One area has sewer lines, municipal well water and roads, but the houses will be looking over roofs and will not have clear view of lake. Green Lake Conference Center is hoping to find a developer to build over 100 houses in their wooded area. This is on hold for now. Residents are concerned with the new high pressure development.

Small houses replaced with larger houses. Now there are shading issues - houses are so large that they cast shadows on the neighbor's homes. Now pie-shaped lots are being formed to maximize the number of lots that can be on Green Lake. There are lots of big piers.

***How do you use the data that you collect?***

On days I collect information I send it to about 15 residents around the lake. The data is also shared with the Chamber of Commerce; the Mayor, the Sanitary District, fishing guides, DNR, USGS and the Ripon waste water plant.

***Why did you decide to monitor water clarity?***

I served as Commissioner of the Green Lake Sanitary District and took secchi data to help the commission before the Self-Help Program began. We have some data from 1972. I was keeper of the data in the early years then began collecting the data myself. We have complete secchi data since 1980. We began collecting rainfall data in 1994. We have noticed that water quality is improving. USGS data also shows a slight improvement in water quality in our drainage area.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

It is always fun to go and see what is out there. I love looking at the butterflies and birds. This year we had pelicans on the lake. A few loons visit the lake, but do not nest here. Right now the coots are flying through. The goose population is out of control. My Father grew up in this area. At that time Green Lake did not have a huge population of geese. Now they seem to stay as long as there is feed in the fields. There are some years that the goose fecal material is up to 6 inches thick on the ice. We have lots of gulls now – they fly from the landfill to the fields to the lake – now we are trying to keep them off docks. Humans are causing impacts even to the bird populations.

Land Conservation is working with us to help our understanding of the watershed.

I hope the data I collect will benefit future generations. I believe strongly in education and keeping the history of the lake alive.

**Ann and Dick Ciske– Big Lake, Shawano County (57 acres, 40 feet maximum depth) - Began monitoring in 1991.**

Ann and Dick Ciske started monitoring water clarity in 1991. In 1994, they began collecting water chemistry (phosphorus and chlorophyll) samples on their lake. In 2009, Ann and Dick trained new volunteers, Ginny and Pete Suechting to take over the water quality monitoring of Big Lake.

***Why did you decide to monitor water clarity?***

Roger Rusch and Ben Seaborne had been collecting water clarity data on Big Lake since 1986. We started helping them and eventually took over the monitoring. We used to come up and rent a cottage and stay on the lake from the folks who were doing the water clarity monitoring.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Water clarity has remained fairly constant since 1986, there are some years when the clarity is better than others but for the most part, clarity in the middle of summer is eight or nine feet.

Eurasian water-milfoil has been in Big Lake for at least twelve years. Now we have lots of it and there has been no concerted effort to control it. We don't have a public access on Big Lake and it is unlikely that we can receive state grants and the cost of containment is prohibitive. We don't have an access area to off load plants if we used a harvester.

Big Lake is a seepage lake. The water level on the lake has declined in the last decade due to the drought.

***What changes have you seen on your lake in the last 20 years?***

Development on the lake hasn't really increased – the same sixty or so properties have been there for the last twenty years. What has changed is the size of the home that is on the property. People used to rent a cottage for a week or two. People don't do that any more. We only have six or so year-round residents.

This is a small lake and things have remained about the same except for the EWM. Big Lake always had a healthy aquatic plant population but now most of the plants seem to be EWM.

***How do you use the data that you collect?***

The data that I collect is shared with the DNR – those lake summary reports are available to all to use. We have a Lake Association and the data is shared with members of the Association.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

We do have a Lake Association. We have talked about changing to a Lake District but I don't think we have enough interest to do that. I am happy that the Suechtings have taken over on the lake. One of the Suechtings is a Science teacher at Xavier high school so they will do a good job.

*What are some of the disappointments that you have seen on your lake in the last 20 years?*

We keep hoping that something is developed to get rid of the EWM. I know that chemical control isn't the answer. The weevils don't seem to be the answer on this lake.

*What accounts for your longevity as a volunteer?*

My wife and I enjoyed collecting the data. Our children and grand children love being on the lake. The grand children are growing up and don't get to visit the lake as often as they used to. We love the lake and spend as much time up here as we can from May to November.

*Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?*

**Lisa Conley – Lac LaBelle, Waukesha County (1164 acres, 45 feet maximum depth)  
Began monitoring in 1989.**

Lisa Conley collects water clarity information on Lac La Belle as well as water chemistry and dissolved oxygen. Lisa is a Lake Leader (crew 5) as well as founder of the Wisconsin Lakes Partnership, a President of Wisconsin Association of Lakes and the first citizen president of the North American Lake Management Society.

***Why did you decide to monitor water clarity?***

I helped design and fund the Self Help Lake Monitoring program as part of the Wisconsin Association of Lakes Board. I wanted to see how well the program worked and also wanted to track water quality changes and trends on Lac La Belle.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

The water is less clear than it was 20 years ago. We are seeing fewer aquatic plants but there is more diversity in the plant species. Eurasian water-milfoil is taking more of a back seat which is allowing more native plants to emerge. I think motor boat disturbance is a big factor in our relatively shallow lake.

***What changes have you seen on your lake in the last 20 years?***

We have noticed that the loons don't stay all summer. Also there are bigger motorboats and motors on the lake. Unfortunately there are more lawns so there is less shoreline habitat. There are also more man-made structures along the shoreline – larger piers and decks that also take away from the natural habitat.

***How do you use the data that you collect?***

The data that I collect is shared with the DNR-those lake summary reports are available to all to use. I also report the data to the Lake District and talk about it to my lake neighbors.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

Wonderful show of migrating ducks, swans, an eagle hunting carp. Moonlight on the lake and every different beautiful sunrise. Skating on black ice when you can see the fish swimming below – a paddle with the mist rising in the morning. The lake is full of magic.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

There are big gaps in understanding and action on the part of homeowners and municipalities on how to keep the lake healthy.

***What accounts for your longevity as a volunteer?***

I love this lake and want to keep track of its health. With the lake data that is collected we can give and get feedback for effective management. Also, it is an excuse for me to go paddling by myself in the middle of the day.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

I want to convert our pontoon boat to solar electric.

**Linda Daniels – Upper Nemahbin Lake, Waukesha County (283 acres, 61 feet maximum depth) – Began monitoring in 1992.**

***What made you decide to monitor water clarity?***

Twenty years ago planning was underway to create a Lake District. The current Self Help volunteers had just retired and I decided that as a retired chemistry teacher, this would be a good fit.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

The biggest change has been the zebra mussels. The first year after the zebra mussel infestation was discovered we didn't notice a change in water clarity or see many zebra mussels. The second year after discovery, the population exploded. The population seems to have leveled off and the water clarity has returned pretty much to what it was before the zebra mussels were discovered.

The aquatic plant population has changed recently. There is an old mill dam on the lake. The dam is being abandoned and silt has been coming into the lake, especially near the mouth of the river. That has impacted the aquatic plant species.

***What changes have you seen on your lake in the last 20 years?***

Twenty years ago, the entire lake was pretty much developed. We are seeing more of the small, older homes being torn down and larger homes replaced these.

***How do you use the data that you collect?***

I share the data with the Lake District in an annual report.

***What are some of the good things that you have seen on your lake in the last 20 years?***

The Upper Nemahbin Management District has worked to develop a "No Wake" policy on the lake on Sundays from noon until 3:00. That gives different users such as kayakers and people who sail the opportunity to use the lake as well. We haven't seen a real problem with enforcement but the DNR and local law enforcement do monitor the lake.

I am pleased with the "No Wake" restriction – this has had a positive impact on the lake.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

The invasive species. The ongoing fight over the dam has been a negative. We are concerned that the silt from the mill pond above the lake will end up in our lake. The City of Delafield doesn't wish to take over ownership of the dam. The dam has been in place for at least one hundred years.

***What accounts for your longevity as a volunteer?***

Monitoring the lake gives me an excuse to go out. Every time I monitor the lake I swim. I love the lake.

**Sue and Greg Dement – Tichigan Lake, Racine County  
(279 acres, 65 feet maximum depth) – began monitoring in 1992**

We were unable to speak with Sue DeMet

**Alan Depies – Wolf Lake, Fond du Lac Co. (76 acres, 47 feet maximum depth) – began monitoring in 1992**

Alan DePies has lived full time on Wolf Lake for 22 years. They had a cottage there before moving in full time. Alan collects water clarity and is on the Homeowners Board as well as helping to maintain the dam and collect water level information. He is involved in lots of volunteer activities!

Wolf Lake was named for the farmer who once owned all the property around the lake. Fond du Lac County is home to four lakes. Wolf Lake is the only lake with a public beach. There is a public landing on Wolf Lake.

***Why did you decide to monitor water clarity?***

I was on the Homeowners Board and the previous water clarity volunteer retired so I took over. I am still monitoring clarity and still on the Homeowners Board!

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

***What changes have you seen on your lake in the last 20 years?***

Yes, there have been changes in the aquatic plant community. Eurasian water milfoil was found on the lake and there are annual chemical treatments now for this invasive species. Water clarity has remained about the same for the last 20 years.

The size of the homes on the lakes remains about the same, people aren't turning their summer homes into large mansions. There are eighty cottages and permanent residences on the lake.

***How do you use the data that you collect?***

I share the data with the Homeowner's Association.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

A dam was installed on the lake in 1991. The dam helps to maintain a more constant water level. We put the boards in on May 1 and remove them in the fall.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

We were very disappointed when EWM was found on the lake. We have boating and water skiing rules and times and those aren't always followed.

***What accounts for your longevity as a volunteer?***

Monitoring water clarity hasn't been a hassle. It is just something that needs to be done so that we can watch our water quality over time. Reporting the clarity results on line has made my job much easier.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

Wolf Lake is close to Lake Winnebago. When it is windy we sometimes get a lot of water skiers and boaters on the lake. We have a small lake and we love the peace and tranquility so we want to keep Wolf Lake as secret as possible!

**Darrel Dorman – Kelly Lake, Oconto County (328 acres, 41 feet maximum depth) - Began monitoring in 1991.**

Mr. Dorman has collected water clarity data on Kelly Lake from 1991 until 2008. Water chemistry samples are now collected. Mr. Dorman worked with Sue Darby in 2009 and 2010. Sue will be taking over the water quality sampling in the future.

***Why did you decide to monitor water clarity?***

I went to the Lakes Convention twenty years ago and got involved in water clarity monitoring. I wanted to help with the history of the lake and felt it was my civic duty.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

The Secchi disk reading has been about ten to eleven feet in August since I started testing. It hasn't changed much. Thankfully, we do not have Eurasian water-milfoil or curly leaf pondweed on the lake (that we know of!). I have not seen an increase in the number of aquatic plants.

We have very little algae in the lake in August.

***What changes have you seen on your lake in the last 20 years?***

There are more people living on the lake year-round now and they are tearing down the small houses and building large houses. I only come up to Kelly Lake from May through September.

The lake is part of a municipal sewage system now – we don't have individual septic systems any longer. We have been part of the Sanitary District for forty or fifty years. We still have small fishing boats on the lake but I have noticed that we have many more large boats and personal watercraft now.

We have four public landings on our lake, which isn't that big. Fortunately we see mostly local boats on the lake. I don't think there is much traffic from boats using Lake Michigan.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

As a result of poor water quality we formed the Sanitary District. We no longer have individual septic systems.

We now have a "No-Wake" law over the whole lake. Speed boats can use the lake between 10 am and 6 pm.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

We tried to get a management group going – that fell through.

***What accounts for your longevity as a volunteer?***

My grand children love the lake. We spent four years modifying the cabin so that they can come to the lake and enjoy their time here. The water in the lake is clean and it is a good swimming lake. We want to make sure that it stays that way.



**Del Dufrain – Sand Lake, Sawyer County (936 acres, 50 feet maximum depth) Began monitoring in 1989.**

Mr. Dufrain collects water clarity data as well as water chemistry and dissolved oxygen. He is a member of the Century Club. Del is a retired biology teacher. He and his wife, Sue, live full-time on Sand Lake.

***What made you decide to monitor water clarity?***

In the 1980's, the residents of Sand Lake and I noticed that the water clarity was declining; algal blooms were becoming more frequent and denser. Many people who lived on the lake were considering moving because of the algal blooms. In 1989 I decided to join the Self Help Lake Monitoring program to see if we could track water quality changes. I am a retired biology teacher and always interested in the biology of the lake so it seemed like a good fit for me to do the water quality monitoring.

In 1992 I was trained to collect water chemistry data on the lake. Bill Barton, a retired DNR warden helped out for a few years and then my wife, Sue, took over. Sue has been helping me ever since. In addition to collecting water chemistry I collected dissolved oxygen data from the lake. I had always used the Winkler titration method but then the Lake Association purchased a dissolved oxygen meter which makes it much easier to collect the data.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Twenty years ago we discovered that a local Laundromat was discharging untreated wash water into a creek that fed into Sand Lake. Once that point source was eliminated water quality improved. The water clarity has remained fairly stable for the last five or six years. Phosphorus levels in Sand Lake are comparable to phosphorus levels in other lakes in the area.

Water levels have declined in the past years. We have a healthy native aquatic plant community on the lake – an aquatic plant survey was done in 2008. There are a couple of areas where there are substantial large leaf pondweed populations – these are good fishing areas.

***What changes have you seen on your lake in the last 20 years?***

Sand Lake has one of the densest housing populations of the area lakes. The resorts that used to be found here have been sold and houses have replaced them. There isn't much land left that is available for development on the lake. A campground is located on one side of the lake which adds to the population using the lake.

Sand Lake is a good fishing lake but there isn't a lot of structure. Sand is the predominant bottom material. The lake doesn't get a lot of recreational use except on holiday weekends.

***How do you use the data that you collect?***

I have always given annual reports on Sand Lake water quality at the spring and fall meeting of our Lake Association. The folks who live on the lake are very observant. We use the water quality data to determine if water quality is improving, declining or staying the same over time – it is good to monitor the water quality trends over time.

***What are some of the good things that you have seen on your lake in the last 20 years?***

There have been improvements made for the fish population. In the 1980's Sand Lake was a naturally reproducing walleye lake. That has changed; the walleye population is maintained now through stocking. The change may be related to the disappearance of bulrush beds or other shore land changes. We have had a good stocking program in the last five years. The Tribe helps with the stocking program.

Sand Lake has very little structure in the lake so the Lake Association has worked to place fish cribs in the lake and has worked with the Fish Biologists to create better size limits for walleye. We encourage catch and release on the lake. The ice fishing is pretty good for crappie.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

It took a while for us to convince the DNR that the walleye were not naturally reproducing and for us to get cooperation with the stocking program.

***What accounts for your longevity as a volunteer?***

Sue and I live on the lake full time. It is important to monitor water quality on a yearly basis and to do that over time. I have an interest in the plants and animals that live in the lake and the lake ecosystem. We are breaking in some new volunteers now because we hope to see the water quality monitoring continue for a long time. Sonja Bierman is one of the new volunteers and helps with the data entry.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

Sand Lake is a beautiful lake, easy to fish and fun to watch throughout the year. It is important for people who live on lakes to become involved in water quality monitoring – for the future of the lake.

**Leone and Richard Elgaard – Big Dummy Lake, Barron County (111 acres, maximum depth of 54 feet). Began monitoring in 1988.**

*The most obvious question, of course, is “Where did the name come from?” Ms. Elgaard doesn’t know for certain but the story that she has heard is that a Native American fellow drowned in the lake and they called him a big dummy for drowning there – seems pretty harsh – the poor guy drowned after all.*

*Mr. and Mrs. Elgaard have been on Big Dummy Lake for 26 years.*

**Why did you decide to monitor water clarity?**

Twenty years ago someone came to the lake association meeting and asked for a volunteer to measure water clarity. We volunteered and have been doing the job ever since. In 2003, we started collecting phosphorus and chlorophyll samples on the lake.

**Have you noticed a change in water quality and aquatic plants in the last 20 years?**

We have not noticed a decline in water quality or many changes in the aquatic plant community. A harvester was used for years on the lake to control the aquatic plant population, but there were always reserve areas where no harvesting was allowed. Chemical control is now used on some of the areas to control the plants.

Big Dummy Lake residents are concerned about the lake level which has been down the last few years. The fish seem to be moving to new areas in response to the lowered water levels. The fishing was better years ago.

**What changes have you seen on your lake in the last 20 years?**

There has been quite a bit of development in the last twenty years – larger homes replacing some of the smaller cabins. Two or three families live on Big Dummy Lake year round.

**How do you use the data that you collect?**

Richard gives an annual report to the Lake Association. Everyone on the lake knows that we are the people who collect the water quality information so when we are out fishing people come and ask what the secchi reading is. We have been able to share our knowledge of the lake and educate people along the way.

**What are some of the highlights that you have seen on your lake in the last 20 years?**

We love to fish and love seeing the wildlife when we are out fishing. Big Dummy is a beautiful lake, deep and clear, with no algae blooms. There are a lot of good people on Big Dummy Lake and if there is a problem, we all talk to each other and come to a resolution. Once when the Warden was out on the lake, he stopped a woman who did not have her fishing license with her in the boat. The Warden drove the woman in his boat back to her car to get the license and brought her back out to the boat to continue fishing. People are just nice here and it makes us feel good to be on the lake.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

There are larger boats on this 111 acre lake, and sometimes these boats chase the loons.

***What accounts for your longevity as a volunteer?***

We are concerned about water quality and love being out on the lake. Both of us are good anglers and love to fish. It is relaxing and it feels good to get away from the city.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

We have passed our love of water, especially Big Dummy Lake, to our children and grandchildren. They all love the cabin, and spend as much time in the water as they are able. The grandchildren spend so much time in the water that they are shriveled much of the summer!

**Ken and Darlene Fiske – Adelaide Lake, Vilas County (60 acres, 69 feet maximum depth) – Began monitoring in 1990.**

Ken and Darlene Fiske collect secchi data on Adelaide Lake for 20 years and are members of the Century Club. They also collect dissolved oxygen and phosphorus data on the lake. Ken and Darlene are active in aquatic invasive species monitoring as well.

***Why did you decide to monitor water clarity?***

Ken was working for a company which was monitoring water quality at the time we purchased the acreage on Lake Adelaide. We decided to use these same techniques on Lake Adelaide which we were visiting ten times a year to camp out, swim, and fish.

***Have you noticed a change in water quality and aquatic plants on your lake in the last 20 years?***

Yes. A small area of purple loosestrife was found growing in a shoreline area and was removed 5 years ago and has not yet reappeared.

***What changes have you seen on your lake in the last 20 years?***

A build-out of all lakefront lots and a decrease in concentrated recreational activities on the lake because of the closing of the lake's only resort.

***How do you use the data that you collect?***

We publish an annual report with the interpretation of that data along with fish information and loon monitoring.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

A pair of loons continues to nest on the island in the lake.

A septic violator was identified and appropriately prosecuted for pumping septic waste into adjoining road ditches.

Revised county septic standards have required the updating of septic systems not meeting the county code.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

The build-out of all lake front lots and the diversity and balance of fish species has changed.

***What accounts for your longevity as a volunteer?***

My wife and I are both still alive and we have local lake residents who fill in for us during the times we are not on the lake.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

Without the assistance of the Don Madden family, who supply us a place to store equipment, boats used for research, and the use of their kitchen for chemical testing, we would not be continuing this activity.

**William Flader – Witters Lake, Waushara County (43 acres, maximum depth 17 feet). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Witters Lake is a seepage lake, the lake level fluctuates from year to year depending on rainfall. There hasn't been a substantial change in water quality or aquatic plant growth in the last 20 years that I have been monitoring.

***What changes have you seen on your lake in the last 20 years?***

We live on a small lake; there are 80 members in our Lake Association. There is a public landing but in years with low water levels it is pretty shallow so we don't get a lot of outside boat traffic. Development pressure has remained pretty constant in the last 20 years. There used to be more year-round homes on the lake, now there are more seasonal residences.

***How do you use the data that you collect?***

I share the data with my Lake Association.

***Why did you decide to monitor water clarity?***

My parents had a cottage on a lake in Sheboygan County and I was Secretary of that Lake Association many years ago. There was a lot of discussion on water levels on that lake so when I moved to Witters Lake, that interest followed me.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

Ten years ago, there was substantial flooding around Witters Lake. There were many septic systems that were flooded, that was a frustrating time for me.

We have tried to convince landowners on the necessity of leaving natural shorelines or restoring those that were disturbed. We are fortunate in having a lake with quite a bit of undeveloped shoreline. Over the years, our lake association has given awards to those folks who have good shorelines. We have a pleasing aesthetic even though some buildings are pretty close to the lake.

***Why did you decide to monitor water clarity?***

We started a feasibility study in 1977 and started taking clarity readings at that time. I was the Chairman of the Lake District at that time and I still am.

**Steven Frey – Cedar Lake, St. Croix County (1120 acres, max. depth 32 feet). Began monitoring in 1986.**

We were unable to get in touch with Mr. Frey.

**Philip Fritz – Bass Lake, Marinette County (36 acres, 50 feet maximum depth). Began monitoring in 1989.**

Mr. Fritz has collected water clarity data for 20 years and is a member of the Century Club. When Mr. Fritz was called for an interview he said volunteerism was about the lake, not about him!

Bass Lake is located in an agricultural setting with only 5 dwellings on its shores. Bass Lake has faced a long history of water quality challenges primarily caused by agricultural runoff from feedlots and unconfined manure stacks. The lake once held a diverse sport fishery which included largemouth bass, northern pike, yellow perch, and various species of sunfish. The Wisconsin Department of Natural Resources even began stocking brown trout; that was the mid 1960's. By 1975 hypolimnetic oxygen began to decline to levels that could not support a coldwater fishery and the stocking was suspended. Fish kills became common and between 1977 and 1991; the average dissolved oxygen concentrations one meter below the ice was 2.24 mg/l dipping regularly below 1mg/l. The small surface area (37.4 acres) and great depth (62 feet) create a large hypolimnetic volume that contributes to the severe algal blooms and fish kills that were common in the lake. On numerous occasions during the last 20 years phosphorus concentrations have exceeded 200 ug/l after spring turnover. In the summer of 1998 hypolimnetic phosphorus levels were greater than 1,700 ug/l and when the lake turned over in November, total phosphorus at the surface was 872 ug/l and dissolved oxygen plummeted to 0.5 ug/l.

In 1984 the lake was entered into the Wisconsin DNR Nonpoint Source Pollution Control Program with the goal of reducing runoff pollution from agricultural sources. Local farmers gave full cooperation and although the runoff reduction helped, phosphorus levels remained in excess of 1,000 ug/l on several occasions. By 1990 it was becoming apparent that the excessive phosphorus was due to internal loading from the lake sediments. A monitoring event in 1996 showed that phosphorus levels exceeded 16,000 ug/l, clearly indicating that the barnyard runoff issue needed to be revisited and revamped.

In 1999, with the watershed phosphorus loading under control, the lake was treated with alum to inactivate the phosphorus laden sediment. Since alum treatment, average Secchi readings have increased from 7 feet in 1999 to 12.6 feet in 2008 with a high average of 17.2 in 2004. The restoration project has achieved TMDL targets and phosphorus concentrations have been reduced from an average of 490 ug/l to 10 ug/L with the most recent sample at 13 ug/L in June of 2008. The reduction in total phosphorus has reduced the blue-green algae bloom that once covered the lake and no fish kills have been noted.

Largemouth Bass are common and panfish and trout are present in Bass Lake. A fisherman on Lake Link posted: "The lake is Gin clear, but still the bass in the lake are gigantic!"

**Don Glaeser – Bullhead Lake, Manitowoc County (70 acres, max. depth 40 feet). Began monitoring in 1987.**

We were unable to get in touch with Mr. Glaeser.

**Walt Hallen, Ashippun Lake, Waukesha County (84 acres, maximum depth 40 feet) - Began monitoring in 1990.**

Walt collects secchi, chemistry and dissolved oxygen data Ashippun Lake and is a member of the Century Club.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Water quality has definitely improved. We still have blooms of milfoil but I think they cover less area than they did 20 years ago.

***What changes have you seen on your lake in the last 20 years?***

The low-density development of the Watson farm in the late '90's got cows out of the water and eliminated runoff from the farm. Water quality has been improving since.

***How do you use the data that you collect?***

Besides posting it on the DNR website, I give brief updates at our Lake District meetings.

***Why did you decide to monitor water clarity?***

I guess it just seemed like the right thing to do at the time.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

The Watson farm development was likely the biggest. Upgrades to, or replacement of, older residences has led to improved septic systems. Renovations to the public access, including a new pier, have improved the aesthetics of that site.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

Not much to complain about. Learning that we had gotten a zebra muscle infestation a few years ago was disappointing, but for some reason they were very minimal last year. Hopefully, that will be the trend.

***What accounts for your longevity as a volunteer?***

Gullibility, I guess.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

Not really. I'm just one of many.



**Marv Hunsaker, White Ash Lake, Polk County (147 acres, maximum depth 9 feet) - Began monitoring in 1993.**

*Have you noticed a change in water quality and aquatic plants in the last 20 years?*

Oh yes. Our lake is considered a flowage because the upper river starts northeast of us, and we don't know exactly what's coming in, and it's changed the structure of the lake. People don't quite understand exactly what happens, but the river does flow by two cattle feed lots. That's been the changes. We were the 6<sup>th</sup> cabin on the lake in 1952, and back then it was very nice. Our weeds were wild rice. It's changed, because of the 167 cabins on both lakes. Especially in the last 20 years or so. In the 1800s our lake used to be 39 feet deep, and they used it to float logs down for lumber. Now it's only 9 feet deep, so that would be a little difficult. Our weed harvester is really getting used. If we didn't have one, we'd be able to walk across the lake on weeds.

*How do you use the data that you collect?*

The data was sent into Madison WI to Jennifer Filbert. We use reports at our lake association meeting.

*Why did you decide to monitor water clarity?*

They asked for volunteers, and I do a lot of volunteer work. I thought it'd be very important. At that time we just did Secchi disc readings, and then we took classes with Spooner for water chemistry so we started that. I do a lot of volunteer work.

*What are some of the highlights that you have seen on your lake in the last 20 years?*

Just watching the animals, the loons coming and going. Nothing life-threatening. It's fun to watch to see the changes from spring to fall. It's quiet.

*What are some of the disappointments?*

The expansion of the weeds over the years, that's what really disappointed me. The activity on the lake with the overgrowth of jet skis and huge boats, way too big for that small lake. We did have an opportunity to put in a restriction, we had to put it in because it got too dangerous and the shore erosion got too much. We had a lot of shore erosion – we lost about 7 feet from 1952 to the present. It gets dangerous sometimes out on the lake, and invariably some people have a bit too many beers. For a small lake that can get dangerous.

*What accounts for your longevity as a volunteer?*

I enjoyed it, seeing the changes and the work we did helped us with grants and other things with the DNR, which we appreciate. We've had good people that we've worked with there, Jennifer Filbert – she was very helpful when the computer didn't want to talk to me.

*Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?*

The person that picked up the work is Pat Mahoney, we've got a pretty good group of people up there. I kinda miss [volunteering], but other things came up.

**Ron Jacob, Tuttle Lake, Marquette County (155 acres, maximum depth 33 feet). Began monitoring in 1988.**

We were unable to get in touch with Mr. Jacob.

**Dale Jalinski – Bear Lake, Oneida County (295 acres, maximum depth 20). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Water clarity has improved since I began monitoring 20 years ago. There is a small algal bloom every year but it hasn't increased. There may be a few more plants than there were in 1986.

***What changes have you seen on your lake in the last 20 years?***

There is much more development on Bear Lake now than there was. At least 85% of the land around the lake is developed. There are more permanent residents now than there were. There used to be more seasonal residents. When I first came to the lake, there were small cottages, now those have become large homes. There is some additional boat traffic that goes along with the increase in development.

***How do you use the data that you collect?***

I share the data with the Lake District and the DNR. I summarize the data every year and present it at the District meeting. I also keep track of precipitation and ice off and ice on.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

The change in water levels in the past was pretty drastic, there was a problem with beavers. We have since installed a new spillway and that has moderated the water levels. It took 7 years to get the new spillway built, but we are proud of that as a Lake District. We also have participated in a stunted panfish removal project. We are a little disappointed that the walleye population isn't improving but with more stable water levels, that may come. We have a good working relationship with the DNR fisheries biologist.

We have many people within the Lake District that help out. We have a great lake and we hope to keep it that way. It would be helpful to have lake summary reports that better summarize the data and have a breakdown of the data every five years. That way, we can look at the summary and see if there is something on the lake that needs attention.

**Bob and Judy Joos – Elizabeth Lake, Kenosha County (638 acres, 32 feet maximum depth) - Began monitoring in 1991.**

Bob and Judy began monitoring water clarity in 1991 and now collect clarity as well as water chemistry data. Judy was on the WAL Board for quite a few years. She mentioned that northern lakes don't always have the same lake issues as southern lakes – intense development, pier issues and crowding. She hopes that northern lake residents can learn from people who live on lakes in the south. Judy helps to organize and teach the Lake District Committee Workshop at the Lakes Convention every year.

The family has been on the property since 1955 (they actually have the same pier that was put in the water in 1990).

***Why did you decide to monitor water clarity?***

Elizabeth Lake was working on a Lake Management Plan. We needed to learn more about our lake so we started monitoring water clarity in 1991. In 1993 we started monitoring water chemistry on the lake and have been doing it ever since.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

There has been an increase in the number of bigger boats on the lake. One side of Elizabeth Lake is quite shallow and really should be a “no wake” area. On weekends when there is a lot of boating activity you can see the suspended sediment in the water. The increased boating activity impacts water clarity – you can even see the suspended material clinging to the aquatic plants. Wind doesn't churn the water up like the boating activity.

We have had Eurasian water-milfoil on the lake since the 1970's. We have small areas of curly leaf pondweed but it is not at nuisance levels. There was a time when residents wanted to use a weed harvester on the EWM but now people recognize that harvesting would not only fragment the EWM but it would alter the native aquatic plant population. One thing that we have discovered with EWM is that populations move. Surveys will be conducted in the summer and fall to determine where treatment will be done the following spring and when spring comes, the EWM sometimes has moved to new areas. The DNR has been flexible in allowing us to alter permits.

When the Lake Management Plan was done in 1990 an aquatic plant survey was conducted. We have significant areas of Ruppia – spiral ditch grass. This is a native plant to Wisconsin but does reach nuisance levels in some areas of the lake. We don't see problems with Ruppia every year – maybe once every ten years or so.

***What changes have you seen on your lake in the last 20 years?***

We have EWM and CLP in Lake Elizabeth. In addition we have zebra mussels which have pretty much wiped out our native mussel population. We are better at controlling the extent to which EWM is found. We have a whole lake aquatic plant management plan which is very helpful.

We do have a public access but parking is limited. Many people launch boats from friends and neighbor's property.

***How do you use the data that you collect?***

We share the data with lake residents of Mary and Elizabeth Lakes and share it with the Twin Lake P&R District.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

One of the most important things that we have learned is the value of native aquatic plants. There are still a few people on the lake who are opposed to having any aquatic plants in their shoreline area but we have made really big strides in teaching people the value of aquatic plants.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

We have had some user conflicts with large boat owners and that may have side tracked our water quality message. People sometimes forget about the ecology of the lake as a whole in order to participate in water sports.

***What accounts for your longevity as a volunteer?***

It's important to monitor water quality and someone has to do it.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

We love Elizabeth Lake. We have bald eagles in the fall of the year that are so incredible to watch. We used to have osprey in the spring and fall. We also see pelicans, which are gigantic!

There is a dam on the outlet of Elizabeth Lake – but the dam is in Illinois. The dam used to be used to raise the water levels in winter for ice harvesting. Most of the ice that was harvested went to Chicago. They hauled the ice out by rail. The height of the dam now is controversial.

There are beautiful and pristine wetland areas that are part of the McHenry Conservancy District. It is one of the most pristine wetland areas in Illinois. There is a kayak outfitter and kayaking on the lake is becoming very popular.

When you love a lake you can't ignore it, enjoy it and expect that it is going to remain beautiful. We have to be more concerned about the lake than just using it for fun. We have worked hard and reached a diverse membership. There are lots of different ways to care and different ways to help. We just have to tap into that.

## **E.T. (Tug) Juday – Anderson Lake, Vilas County (33 acres, maximum depth 63 feet)**

Tug monitored water clarity and water chemistry and just retired from CLMN this year. His great Uncle was Chancey Juday, who together with G. Evelyn Hutchinson, and Edward Birge were pioneers of North American limnology. Birge and Juday founded an influential school of limnology on Lake Mendota at the University of Wisconsin. Tug and his family have a wonderful land ethic that reminds me of Aldo Leopold.

### ***Why did you decide to monitor water clarity?***

The Fish and Game Club in Land O'Lakes had a program on water quality and monitoring water quality and I decided that sounded like something I would like to do. There was a need for monitoring and I thought I better do it.

### ***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Anderson Lake is quite small but very deep. We have always had excellent water clarity on the lake. The greatest Secchi depth that we recorded was twenty-eight feet. Trout Lake School of Limnology was out to monitor and record the species of aquatic plants on the lake five or six years ago. They found thirty-two species. I would say that water quality has remained pretty consistent for the last twenty years.

### ***What changes have you seen on your lake in the last 20 years?***

There is no public access on the lake. The people who live on the lake are very respectful of the lake and wish to maintain the good water quality that we are blessed with.

Rainbow smelt were introduced many years ago – maybe in the 1960's. We think that someone on the lake planted them thinking that they would provide food for some of the larger fish.

I remember when Anderson Lake was a bass/panfish lake but someone planted 100 walleye years ago. I don't see many perch any more. We have northern pike now, I don't remember those years ago.

Only electric motors are allowed on the lake. Everyone who lives on the lake is made aware of the value of woody debris – it all stays in the lake. Also, we all know that we need to care for the shoreline and shallow areas of the lake.

### ***How do you use the data that you collect?***

We don't have a Lake Association on Anderson Lake but I have always graphed and kept records of the water quality monitoring that I have done. My children and grand-children have learned about water quality monitoring from an early age.

### ***What are some of the highlights that you have seen on your lake in the last 20 years?***

It is wonderful that the water quality on Anderson Lake has remained good. We have good stewards who live on the lake – there are no electric motors and the landowners try to disturb that shoreline as little as possible.

### ***What are some of the disappointments that you have seen on your lake in the last 20 years?***

The only disappointments that I can think of are the introduction of smelt to the lake. Also lake residents planted walleye and tried to change the lake from a bass and panfish lake to something that it was not intended to be.

***What accounts for your longevity as a volunteer?***

Water quality monitoring needed to be done and I decided that I should do it. I am grateful that when I retired I found good volunteers to continue the monitoring.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

Tug monitored water clarity for many years by himself. A few years ago, his daughter, Pat, started going out with him to collect water clarity and water chemistry data. They work so well together and do much for their community and for Anderson Lake. Tug and Pat are inspiration to everyone!

**Robert Kirschner – Crystal Lake, Forest County (63 acres). Began monitoring in 1987.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Although there has been moderate year-to-year variation in water clarity and water quality, overall there does not seem to be a significant change. The lake has always supported a very sparse aquatic plant community, and that continues today.

***What changes have you seen on your lake in the last 20 years?***

Although the number of motorboats has not changed appreciably, the size and power of them has increased substantially. In addition, the use of jet skis has increased dramatically (they were essentially nonexistent 20 years ago). And while the noise levels and pitch of the more recently manufactured jet skis are less bothersome than the early models, they continue to be so annoying to me in the late afternoon and early evening that I am seriously considering moving to a no-wake lake.

***How do you use the data that you collect?***

It provides a quantifiable, science-based benchmark to look beyond “normal” year-to-year variations in lake quality and allows one to ascertain if significant trends are occurring.

***Why did you decide to monitor water clarity?***

How could I not? “Practice what one preaches!”

***What are some of the highlights that you have seen on your lake in the last 20 years?***

The spring peepers in chorus welcoming me as the sun sets over the lake after slipping out of work a few hours early on Friday afternoon.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

The removal and destruction of vegetation in the shoreline zone continues, often in the interest of creating or expanding lawns. The nighttime sky grows ever brighter – not from the stars or the moon, but from the reflected glare of powerful mercury/sodium yard lighting.

***What accounts for your longevity as a volunteer?***

So long as the loons keep coming back each spring, I’ll keep monitoring the lake for them.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

The township lake regulations (i.e., no-wake from 4 p.m. until 9 a.m.) are largely ignored. Methinks / mehopes the day will come when we better appreciate how our neighbors define “the perfect day at the lake.”

**Jim Klimas – Bond Lake, Douglas County (292 acres, 67 feet maximum depth)**

Mr. Klimas collected water clarity data on Bond Lake since 1991. In 1994 he started collecting water chemistry samples. Mr. Klimas passed away in August of 2010.

**Howard Lang – Green Lake, Washington County (71 acres). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Water quality on Green Lake has remained fairly stable. We are fortunate that we don't have Eurasian water-milfoil or curly-leaf pondweed on our lake. I have been doing aquatic plant monitoring on the lake for the last 10 years.

***What changes have you seen on your lake in the last 20 years?***

There are more year-round homes on Green Lake and more motor boat use. There is a concern on the lake that the increase in boat traffic will cause shoreline erosion which will also impact water quality.

Although we don't have zebra mussels, Eurasian water-milfoil or curly-leaf pondweed in our lake now, there is a lake near by with zebra mussels. There is concern that these might spread to Green Lake.

***How do you use the data that you collect?***

I share the information with the Green Lake Property Owners Association. I also include the information in a newsletter that is written for the Association.

***Why did you decide to monitor water clarity?***

I monitor clarity, water chemistry, aquatic plants and aquatic invasive species on Green Lake. I have been monitoring clarity for 30 years.

***What are some of the highlights on Green Lake?***

I am very pleased that there is a new volunteer trained in 2006 that will help out with the monitoring. The increase in awareness in aquatic invasive species will help to preserve water quality and will get more people out on the lake monitoring for invasive species.



**Richard Lathrop – Presque Isle Lake, Vilas County (1280 acres, 80 feet maximum depth). Began monitoring in 1989.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

The water quality does not appear to have changed much in the past 20 years (clarity always declines through the summer probably due to internal phosphorus recycling). Submersed aquatic plant growth has been sparse due to large populations of rusty crayfish, although densities of crayfish did seem to decline for a period allowing plant growth (especially broadleaf pondweeds) to increase slightly. Crayfish densities have been creeping back up a little more recently, but not to the levels they were some years ago. Maintaining low crayfish densities I believe is critical for the lake ecosystem. There also have been some changes in the bulrush beds along the north shore of the lake at least in one area as people are using this area for boat parking parties and water skiing start-ups.

***What changes have you seen on your lake in the last 20 years?***

Water levels have declined significantly in the last few years due to less precipitation in northern Wisconsin. I've also seen a lot of new large houses be built on undeveloped shoreline. In a couple of cases, the shoreline alterations were massive and destructive to the lake. A few years ago, one large house built on the east shoreline with a very steep long slope ended up having a whole stand of trees slide down into the lake. In some cases, natural forest vegetation was cleared away so that lawns could be planted.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

Forming the lake association was a good thing that happened on the lake.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

Many summers around mid- to late July the lake has had a Gleotrichia bloom such that if there is a south wind, the bloom will pile up along the north shore around our pier. This concentration of the blue-green algae renders the water highly objectionable for swimming for short periods of time until the wind shifts and disperses the algae. Poorly planned shoreline development has a negative impact on the lake as well as the trend to more powerful boats and noisy jet skis.

***What accounts for your longevity as a volunteer?***

My interest in limnology is the reason I have been a volunteer, as I know that long-term Secchi data are valuable for detecting water quality changes in the lake. If the water quality declines, it is important to have data to document it.

**Kevin MacKinnon – Delavan Lake, Walworth County (2072 acres). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Delavan Lake undertook a whole lake rehabilitation project fifteen years ago. Since then, there have been positive changes in water quality. Before that time, there was one secchi reading of 3 inches. Now, secchi readings average between 8 to 10 feet. The lake rehabilitation project consisted of dam modifications, sediment retainment ponds, a wetland restoration project and a whole lake alum treatment. The objective was to reduce the nutrients coming in to the lake. The trophic state of Delavan Lake has changed from eutrophic to mesotrophic.

***What changes have you seen on your lake in the last 20 years?***

The change in water quality is one of the most obvious changes. In 1981, a sewer system was installed that handled the residents around Delavan Lake. At that time, there were 2000 customers. There are now 3000 customers in the Sanitary District. We have everything from seasonal to year round homes. There is likely a new property owner on Delavan Lake every day. It is difficult to keep up with the new people moving on the lake and understanding what their expectations of water quality are. There is no general consensus of what a lake should be when you have so many people coming and going. There is a lot of pressure from urban development. Another change in the last 20 years is the fishery. Long ago, there was a diverse native population of fish in Delavan Lake. That diverse population was replaced by rough fish such as carp and big mouth buffalo. A project was undertaken to kill the fish in the watershed. Some carp have returned to the system, but once again, there is a diverse fishery. By the mid-70's, there were two species of plants in Delavan Lake, curly-leaf pondweed and white water lily. Now there is a more diverse population of native plants (22 species of macrophytes in the last plant survey) and the curly-leaf pondweed is not much of a problem. We do have Eurasian water-milfoil. It is amazing that the native plant species remained dormant for 20-30 years.

***How do you use the data that you collect and why did you decide to monitor water quality?***

I started monitoring the lake in 1983 with the U.S.G.S. After that time, I just continued monitoring under the Self Help program. I work with the Sanitary District but there is a lot of coordination with the District and the volunteers on the lake.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

The lake rehabilitation project is certainly a highlight – restoring aquatic plants and a diverse fishery and improved water quality were always the goals. We are fortunate to have a good bank of data for the lake but we need to stick with it and create some long term trend data, to look at the extremes and the averages. Hopefully in the future we will have better control of the data that we are collecting, a new gauge on the downstream end will help us out. We also need to establish some stormwater management protocol for the lake to ensure that the nutrient load is not increasing.

**Marj Mehring – Squash Lake, Oneida County (396 acres, 74 feet maximum depth). Began monitoring in 1989.**

Marj collects secchi data on Squash Lake as well as water chemistry and dissolved oxygen. It is a great feat to have taken dissolved oxygen readings using the Winkler titration method for so many years on a lake that is 74 feet deep at the deep hole! Marj is a member of the Century Club and participated in the integrated sampler comparison study. She has attended Clean Boats, Clean Waters training and is an avid paddler.

When I talked to Marj she said “It’s About the Lake, it isn’t About Us”.

***Why did you decide to monitor water clarity?***

I lived on Rollingsstone Lake in Langlade County 20 years ago and they asked for volunteers to do water clarity monitoring. I volunteered because I thought it was interesting and fun. When I moved to Squash Lake, I continued to collect the data.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

For the last two years we have seen an increase in the amount of algae in the lake, I think it is related to the warm summer temperatures and the drop in water levels in the lake. When I first moved to Squash Lake water levels were very low - they increased to normal and now are dropping again. Water levels are cyclic and these cycles are natural. Years ago when the water levels were low my bay was very shallow and muck was stirred up.

We have seen more aquatic plants in the last two years.

***What changes have you seen on your lake in the last 20 years?***

I have seen more boats on the lake and more people using the lake. Hot summers bring people to lakes!

***How do you use the data that you collect?***

I share the data with the Squash Lake Association and other interested parties.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

I love being out on the lake on warm, sunny days. I enjoy the beauty of the lake and seeing the loons and eagles and the sunlight sparkling off the lake.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

Even though I know water level changes are a natural phenomenon the low water level is a disappointment to me. Low water levels also seem to bring an increase in algae on Squash Lake.

***What accounts for your longevity as a volunteer?***

I have always been interested in aquatic biology and just love learning about Squash Lake. I also recognize that the data we collect will be used in the future and may help to preserve our aquatic resources. We need to think about future generations and what we are leaving them. Also, there is no pressure in being a CLMN volunteer. You are able to set your own schedule.

*Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?*

I enjoy helping people learn more about Wisconsin lakes and I hope that the data we collect helps us to preserve these treasures for future generations. I like sharing the information that I gather with others.

**Rod Olson, Lake Desair, Barron County**

We were unable to reach Mr. Olson.

**Jim Merkowitz – High Lake, Vilas County (734 acres, 31 feet max. depth)**

Mr. Merkowitz collects secchi data on High Lake and is a member of the Century Club having collected more than 100 water clarity readings.

Mr. Merkowitz did not respond to the interview questions.

## **Eugene Ohm, Virgin Lake, Oneida County (278 acres, 31 feet max. depth)**

### ***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Yes. It had a lot to do with overall weather conditions and patterns (rain years/dry spells/wind/etc.). For example, rain years usually made the water muddier, less clear, etc. The lake has become a little weedier. Overall, it hasn't changed much. My grandmother bought this property in 1924, and in 1970, it was handed down to my dad. There were about 20 cottages when I first owned this property. Now there are over 100 cottages. That could be a factor to water quality and plants as well. We all enjoy it.

### ***How do you use the data that you collect?***

I wonder about water quality data often. But not being educated too well on lake ecosystems, I was never quite sure what to make of the data. I noticed these changes: As cottages increased, bulrushes seemed to disappear in certain areas. The populations of bulrushes distant from cottages do well. The sandbar on my side of the lake was really weedy but now there's just moss. The bulrushes at the north end of lake have ended up at the southern end. Though I have seen these changes, the lake's been good to me.

### ***Why did you decide to monitor water clarity?***

My neighbor volunteered to do it and conned me into doing it. He was older and asked me to. Then 20 years go by! It went fast and I enjoyed it all.

### ***What are some of the highlights that you have seen on your lake in the last 20 years?***

I've enjoyed watching eagles nest on the island on the lake for I don't know how many years. I always enjoy watching the loons and watching the eagles grow. The eagles would always perch on a tree at my shoreline.

### ***What are some of the disappointments that you have seen on your lake in the last 20 years?***

There have been so many people who've moved onto the lake. You get possessive to a certain extent. I can't really say there are too many disappointments; you have to share. The older you get, you think it was better years ago. I don't think people use the lake as much now as I did back then.

### ***What accounts for your longevity as a volunteer?***

I don't know...I just did it because they wanted me to...and I lived kind of long. I'm 79 years old. I started late in my lifetime doing it. I was retired and I could do it.

### ***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

No, not really. We used to know everybody on the lake. Most of the homes have changed hands. There aren't a lot of people left that were here 40 years ago. Many have died off.

**Dave Opsteen – Rose Lake, Langlade County (112 acres, 24 feet maximum depth)**  
Dave collects secchi data on Rose Lake is a member of the Century Club.

***Why did you decide to monitor water clarity?***

The individual that was conducting the monitoring no longer had the time and I felt it was important to continue to collect data for Rose Lake. I enjoy volunteer work and contributing to society. I felt the data should be collected to give us an early warning for any deterioration in lake water quality.

***Have you noticed a change in water quality and aquatic plants on your lake in the last 20 years?***

The water quality on Rose Lake has continued to be excellent over the past 20 years. The aquatic plant life has changed drastically. Rusty crayfish became a problem in the lake and destroyed most of the plants. Large lily pads were destroyed along with the other aquatic plants. After the lake association planted smallmouth bass to help eliminate the rusty crayfish, the plant life is starting to return.

***How do you use the data that you collect?***

I review the data to insure there aren't any drastic changes that would indicate a shift in water quality.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

Our daughter and son enjoy the lake from infant to adulthood.

Baby loons mature and leave in the fall.

Deer, fox, bear, mink, and many bird species move about the shoreline and osprey dive into the water for a meal.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

The rusty crayfish destroying the aquatic plants and fishing.

***What accounts for your longevity as a volunteer?***

I enjoy being out on the lake and volunteering. It doesn't take much time to conduct the depth reading and it gives me a reason to get out on the lake. I also believe it is important information to be added to the DNR's database. The earlier water quality issues are identified, the better chance we will have to do something about it before it's too late.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

I enjoy the serenity offered by the lake and surrounding forest.

**Patrick Perkins, Bass Lake, Washburn County (144 acres, maximum depth 31 feet)**

Mr. Perkins collects water clarity, chemistry and dissolved oxygen data on Bass Lake and is a member of the Century Club. Mr. Perkins has collected pH, water chemistry and water clarity data on Bass Lake since 1961, long before CLMN was created. Mr. Perkins may be the State of Wisconsin's only 49 year veteran! Mr. Perkins was a Fish Manager with the DNR for over 38 years – he said fish managers know where the fish are but catching them is another story. Fishing puts you on an equal footing with everyone else.

Those of you who use the green books “Surface Water Resources” of each county in Wisconsin know how invaluable the information contained in these books is. Mr. Perkins helped collect the information for those counties in the old north west region of the state.

*Why did you decide to monitor water clarity?*

I was a fish manager with the DNR for over 38 years for Barron and Polk County. I knew the value of collecting baseline data and had a real interest in monitoring water quality. We purchased the property on Bass Lake in 1961 and I have taken water chemistry and pH and dissolved oxygen and water clarity readings on the lake since then.

*Have you noticed a change in water quality and aquatic plants on your lake in the last 20 years?*

The lake is 32 inches low now – that has happened incrementally over the last 7 or 8 years. The clarity, pH and alkalinity has remained pretty constant since 1961. Consistently the water clarity is between twenty and twenty-five feet in the spring and 14 to 16 feet during the summer months. Water chemistry has remained pretty constant.

*What changes have you seen on your lake in the last 20 years?*

The fish population varies a little bit. Back in the late 50's netting was done by the DNR to remove stunted bluegills, which were then moved to kids fishing ponds. Over the years, the size of the bluegills has increased. The aquatic vegetation is about the same as it was in the early 60's.

There are more jet skis and more people. In the early 60's there were 15-20 cottages and no permanent homes. Now there are 75-100 cottages and a few permanent residences.

*How do you use the data that you collect?*

We don't have a Lake Association on the lake but the information is shared with the Washburn County Lakes and Rivers Association and is available in SWIMS. The local DNR has all of the data collected as well.

*What are some of the highlights that you have seen on your lake in the last 20 years?*

We have good water quality and a healthy lake. We don't have any aquatic invasive species on the lake.

*What are some of the disappointments that you have seen on your lake in the last 20 years?*

We tried to organize a lake association but weren't successful. Many of us realize the benefits of having an organized lake association in case there are problems on the lake such as winterkill or aquatic invasive species. We haven't had a winterkill yet but if the water level continues to decline it is a worry.

*What accounts for your longevity as a volunteer?*

Monitoring water clarity and water chemistry is a good way to keep my hands in the water. My professional career has revolved around the water (I worked in a hatchery early in my career and then became a fish manager. I understand the need for collecting water quality data. I am happy to be able to do it.



**Gerald Ptaschinski – Porters Lake, Waushara County (68 acres). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

There have been slight changes in water quality but overall it has been pretty stable. The population of aquatic plants has remained fairly stable as well. A plant survey was just completed on Porters Lake and there is good plant diversity. We don't have curly-leaf pondweed or Eurasian water-milfoil. There is purple loosestrife on the lake but since beetles were released, we feel that we have the population under control.

We go through the University of Wisconsin – Stevens Point task force for chemistry analysis and have been doing that for many years.

***What changes have you seen on your lake in the last 20 years?***

The makeup of the lake residents has changed and there is shift in the recreational population. In the old days, people looking for recreation on their lake would catch fish or frogs. Now, there are more personal watercraft and larger boats. Seasonal residences have been replaced by permanent residences.

We have been treating purple loosestrife on the lake for several years and are educating people on Eurasian water-milfoil. The best approach to controlling aquatic invasive species is through education.

***How do you use the data that you collect?***

Data that I collect is shared with lake residents and with the consultants working on the lake reports.

***Why did you decide to monitor water clarity?***

Before we became a qualified lake association I volunteered to monitor clarity – maintaining water quality was an important issue for me. Going to the Lakes Convention renews my interest from year to year and gives the lake association ideas on how to keep people interested and involved. Hopefully, Porters Lake is keeping current.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

Going from a Lake Association to a Lake District generated lots of interest and really got people involved.

We did some northern pike stocking on Porters Lake but that didn't pan out. We stock fish and pay for it ourselves.

People watch over Porters Lake and take an interest in water quality. That is one of the highlights. I don't think that we have had any disappointments – being involved tends to keep bad things from happening. We have normal fluctuations but nothing worth mentioning.

## **Tom Rulseh, McDonald Lake, Vilas County**

### ***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Nothing consistent, it's been pretty steady. This is in the results over the years. I started out with just the Secchi disc, and started phosphorous and chlor-a a few years ago, and everything's been consistent with some seasonal and year to year variability. Last year the chlor were a bit higher than usual, probably from the early thaw. The change in equipment was good. We used a Van Doren initially for temperature, but it was really awkward compared to the thermometer. It's been relatively easy and good to keep tabs on the lake, and we're glad that the WDNR is able to continue this.

### ***How do you use the data that you collect?***

I give a report at the lake association meeting, on the previous year's data and the recent sampling.

### ***Why did you decide to monitor water clarity?***

I've always been interested in the environment. I studied physical geography in school, so I've always had an interest in atmosphere, and water. The lake on which our property is a 39 acre seepage lake, and since I started visiting the lake in 1954 there's been quite a bit of development on the lake. There's always a bit of concern with increased development that it could have an adverse effect on the lake quality. So far we've been lucky that everyone has been good about everything.

### ***What are some of the highlights that you have seen on your lake in the last 20 years?***

I think that the regular monitoring over the years and the reports that I give to the association give awareness of water quality, and so that was a good time.

### ***What are some of the disappointments?***

I guess overall it's been good. The thing that a lot of people are concerned about is being a seepage lake in an area that's suffered from drought, the lake is quite low. Over the years we've seen the lake rise and fall but it's been low for an unusually long time. I guess the good news is as of this point we are higher than last year. It's up about 9 inches, but it's got a foot or more to go.

### ***What accounts for your longevity as a volunteer?***

I think sometimes I should be introducing the process to others so that we can continue with it. We'll be trying to introduce our younger association members to the process so it can continue. Recently the town of Cloverland embarked on a qualitative analysis of the 23 lakes here, and I participated in the Cloverland Lakes Committee. It's interesting because some lakes have monitoring and some don't and we're trying to educate everyone on the importance of quality monitoring and management, and it's been interesting. We received support from the DNR to work with Onterra, who mapped out the plants and watershed for each lake. We're using that as a baseline for the future.

*Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?*

I guess it should be emphasized that it's an interesting and easy thing to do – it's rewarding to go out and see what's going on in the lake and know that the results that you are recording are looked at by professionals and experts – people who are trained to evaluate that sort of thing. You don't need to be a chemist or some kind of a trained expert. You do need to follow a strict protocol but it's really easy to do – easy and fun to do.

**Kay Scharpf – Franklin Lake, Forest County (892 acres). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Water quality and water clarity on Franklin Lake has remained fairly constant. There have been rusty crayfish in the lake for about 30 years, now it appears that the population of rusty crayfish is declining. Last year we noticed more aquatic plants in the lake. Clarity is a little lower this year than normal

***What changes have you seen on your lake in the last 20 years?***

Property owners on Franklin Lake are blessed with good water quality. Two-thirds of the land adjacent to Franklin Lake is owned by the U.S. Forest Service. Only one-third is privately owned so we don't have the development pressures that many lakes have. For these same reasons, Franklin Lake has not seen many changes.

***How do you use the data that you collect?***

I share the data with the Lake Association. Entering the data into the database makes it available for the public to use.

***Why did you decide to monitor water clarity?***

My interest in water quality began in the 70's when our newly formed lake association needed someone to collect water samples for Dr. Crabtree at UW Stevens Point. The lab there did coliform counts and we were hoping to pinpoint failed septic systems. Self Help started in 1986 and it seemed like a good fit for me to continue water quality sampling. I just continued on and went from secchi disk to the expanded chlorophyll, phosphorus and oxygen levels. We now have established a good water quality baseline record for Franklin Lake and I feel that it is important to observe and follow changes.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

We have always had good water quality and water clarity on Franklin Lake and we are all grateful for that. The Lake Association and foundation has always been very supportive of the work that I do and good about purchasing equipment. We were one of the first lakes in the northern region to have a dissolved oxygen meter.

I would like to praise the genius who invented the Integrated Sampler. What a simple thing after that clumsy Van Dorn. Then the old phone reporting system almost ended my monitoring career. The on line reporting came just in the nick of time.

I am sure that my fellow monitors can relate to some of the following episodes I have had while in the boat collecting samples: notes blowing into the water, forgetting my pencil, motoring home dragging my anchor and not to mention forgetting to attach my anchor to the boat. There is the matter of hording ice cubes. After saving ice cubes for days for the mailer, it is aggravating to find that your husband used them for drinks.

I get satisfaction from involving others in lake monitoring. I feel it is important to pass on water quality information to the lake association and create awareness for arising problems such as Eurasian water-milfoil and zebra mussels. Thanks for the monitoring opportunity.

**Otto Schoeneck – Sugar Camp Lake, Oneida County ( 545 acres, 38 feet maximum depth)**

Otto has been collecting water clarity and water chemistry data on Sugar Camp Lake and has lived on the lake his entire life. He is always able to find time to help out with environmental projects and has been helpful in tracking algal populations on Sugar Camp Lake.

***Why did you decide to monitor water clarity?***

A friend's daughter was an intern for the DNR in Rhinelander and asked me to monitor water clarity. I have been with it ever since.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

I have lived on the lake my whole life. I have definitely noticed a decline in aquatic vegetation on the lake since the mid 1970's. Sugar Camp Lake is very acidic which results in high mercury content in the lake. The water level impacts the concentration of acid in the lake. As the water level drops, acid concentration increases. The only algae that seems to grow in acidic conditions is spirogyra. When water levels are high, there are more abundant species and concentrations of algae. In 2002, high water levels led to a very bad algal year. Jim Kreitlow in the Rhinelander DNR office has been really helpful in identifying the species of algae found on the lake.

***What changes have you seen on your lake in the last 20 years?***

We used to have five resorts on the lake but those are gone now. We no longer have a public landing on the lake – DOT closed down the one landing that we had due to safety concerns. There is a public beach just off the Highway. When I was young, there were only two families that lived on Sugar Camp Lake year-round. Now there are lots of families that spend the entire year here. Boats are larger. The majority of the part-time residents are from the Fox Valley and Illinois. People have enlarged what used to be part-time cottages for year-round residency. We don't have the rash of extra large homes that some lakes have.

The water level is still down about three feet. The drought has had a dramatic impact on Sugar Camp Lake.

***How do you use the data that you collect?***

We don't have a Lake Association on Sugar Camp Lake. There was a brief effort years ago but it didn't amount to much. Some residents have attached themselves to the Indian Lake Association.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

In 2009 and 2010 I had the greatest water clarity readings ever on Sugar Camp Lake – the Secchi disk hit bottom. The 8 year drought caused a lack of run off and concentrated acid so there was little algal growth. Water levels on Sugar Camp Lake were down about 40 inches. The lake has come up a few inches.

Most of the properties have been in the same families for generations. Most of the people living here are committed to keeping the lake as it was and preserving water quality.

*What are some of the disappointments that you have seen on your lake in the last 20 years?*

A dry boat house was constructed which is visually intrusive.

*What accounts for your longevity as a volunteer?*

Having volunteers collect water clarity and water chemistry data is a good way to get a lot of data inexpensively. Water samples used to be collected by plane – the Biologist would visit certain lakes twice a year by sea plane. The plane landed and the samples were collected.

Now, water samples are collected by volunteers and the data collected is shared with other lake residents and other concerned citizens. The satellite data is an exciting component of CLMN.

*Do you have anything else that you would like other citizen lake monitors or people on your lake to know about your lake?*

There is a 40-acre island in Sugar Camp Lake. It was logged off when most of the land in the area was logged. After the trees were gone, it was farmed. A road was built to the island. Cattle were pastured on the island. In the 1970's potatoes were planted on the island. Then the owners of the island were offered a tax incentive to let the island revert back to nature. Although the trees aren't as large as they would be naturally, the island is a beautiful reminder of what the land used to look like. No matter where you are on Sugar Camp Lake you can see the island. I would be happy if the island was put into Conservancy and the road material removed. With the current zoning, there could be five legal building sites on the island and that would be devastating.

The island is unique and beautiful.

**Carol Schumacher, Clark Lake, Door County**

*We were unable to reach Mrs. Schumacher.*

**Paul Schumacher, Clark Lake, Door County (868 acres, 25 feet maximum depth)**  
Paul collects secchi data on Clark Lake and also collects water chemistry and dissolved oxygen data on the lake. He is a member of the Century Club. Paul is on the WAL Board of Directors.

***Why did you decide to monitor water clarity?***

I have a water science background and observed that there was increased turbidity and a reduction in the reed population. An inclination to “give back” to the lake.

***Have you noticed a change in water quality and aquatic plants on your lake in the last 20 years?***

- Yes, 1989-2005:
  - Increased turbidity
  - Decrease in rooted macrophytes
  - Decline in bluegill fishery
  - Die off of reeds
- Yes, 2005 to present
  - Zebra mussels
  - Significantly reduced turbidity
  - Increase in rooted macrophytes
  - Increase in fishery, especially bluegills and perch.

***How do you use the data that you collect?***

The data was used as background for a watershed monitoring study performed by UWSP, and funded by the DNR and our Lake Association.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

- Increase in rooted macrophyte populations and diversity
- Positive change in fishery
- Reduced turbidity

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

- Higher HP boats
- Decline in reeds
- Jet skis and boats in shallow water, resuspending sediment and destroying reeds.

***What accounts for your longevity as a volunteer?***

My conservation ethic and an effort to “act locally and think globally”.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

I am the President of the Clark Lake Advancement Association and on the Board of Directors of WAL. I also help other lakes that are going through similar or related problems to the ones that we are facing on Clark Lake.

**John Sipos – Golden Lake, Waukesha County (250 acres, maximum depth 46 feet).  
Began monitoring in 1989.**

***Why did you decide to monitor water clarity?***

In 1989 I purchased our property from my mother and joined the board. I offered to do the water quality training and testing and never stopped dipping the disc bi weekly. My family has lived on Golden Lake since 1891 – I love the lake.

Mr. Sipos said that the lake has golden colored clay on the shorelines – Golden Lake is descriptive of that. Mr. Sipos collects water clarity information as well as water chemistry, dissolved oxygen and temperature profiles.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

The water is actually clearer now, probably because of zebra mussels which first appeared in 2003. Our record secchi depth is 34' recorded on 6-9-07 breaking the old record by 3'. Weeds are numerous in 5-12' of water coming to the surface and clogging motor props. Eurasian milfoil is here but the beds release by the roots in late summer and fall. The beds continue to move to different areas of the lake. The channels on the north end are closing down with the growth of cattails progressively moving outward.

***What changes have you seen on your lake in the last 20 years?***

Higher taxes, bigger houses, less friendly new residents, more environmentally conscious lake users policing their own garbage and helping to maintain the beauty of the lake, Too much lawn fertilizing taking place

***How do you use the data that you collect?***

We have used the data to prove clarity levels advancing and not declining.  
We are using the water depth readings to establish a high water and no wake flood marks

***What are some of the highlights that you have seen on your lake in the last 20 years?***

I was able to raise my two sons on the same lake I have lived my whole life.  
It is a great pleasure to see other families and their friends bonding on/around golden lake.  
I have met many people in the state who clearly remember, like it was yesterday, their days on the water at golden lake. It is enjoyable to see their smiling faces recalling the hours spent here. I know and completely understand their feelings.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

The parking lot near the boat landing was reconstructed recently. There are sixteen actual parking spaces but people have started parking on the grass which increases the number of spaces to more than 20. Twenty boats on a 250-acre is a lot. The parking lot issue will be addressed this summer and parking will be more restrictive.

I miss those life long friends and neighbors who have passed away and neighbors who have moved away who were close friends. The thought that the taxes will chase us off the lake and not let our family continue here as we have been since 1881. The zebra mussels!!!  
Too many government rules and regulations.



*What accounts for your longevity as a volunteer?*

The task is easy and important. I spend many hours on the lake and enjoy doing the disk readings. If the zebra mussels continue to thrive I will need a longer oar as the secchi disc rope is only 30' long.

*Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?*

Lake property owners need to remember that the citizens of Wisconsin own the lakes. It is very easy to have lake residents, lake associations or districts, become greedy/selfish and try to limit access by the public. Too many rules and regulations can choke the fun out of lake use also. The lake is here for all state residents to respectfully use and enjoy whether boating, swimming, fishing, sailing or paddling. Doing so will insure that the lake will be here for many future generations. Please enjoy one and all!!!!

**Elaine Spees – Huron Lake, Waushara County (40 acres). Began monitoring in 1986.**

We were unable to get in touch with Ms. Spees

**Barb Spees – Lake Huron, Waushara County ( 40 acres, maximum depth 46 feet). Began monitoring in 1988.**

*Barb passed away in December 2007. She collected water quality information with her sister, Elaine Spees and her nephew, Marc Spees for 20 years. We would like to thank the Spees family for their work and their continued support.*

**Marc Spees – Lake Huron, Waushara County (40 acres, maximum depth 46 feet).  
Began monitoring in 1988.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

A slight change. I know that the readings indicate not much change at all; but, I think there is a little more presence of algae and we do get some globs of blue-green algae at times. That never occurred in the past. If you want to go back forty or more years; then I'd say there was more of a change. The water was clearer in my youth. I'd snorkel quite a bit and even swimming it was of no consequence if you opened your eyes under water. There was not the fine film of algae on the water plants. My Dad had made a viewing box and you could see clearly to depths much greater than you can today. There used to be more of the tall plants with the leaves coming off the stem, sorry I can't bring the plant name to mind.

***What changes have you seen on your lake in the last 20 years?***

Other than the fluctuation in levels; I think the most dramatic change has been a decrease in the number of crayfish and the rise in number of snails. The greater presence of snails probably started more than twenty years ago. I think the crayfish started dwindling about a decade ago. I do think I'm noticing a greater number of bass swimming about the dock than twenty years ago. Of course, the bigger ones are smarter and seen less frequently.

***How do you use the data that you collect?***

Our data has been used at the lake association meetings. We keep the data and always talk about the annual summary. We have a cottage journal and with that keep an informal history of the family and the lake. I think we gather the information more for the folks at the DNR to help keep tabs on the health of the lake. I do realize that we are pretty fortunate and the lake is pretty healthy.

***Why did you decide to monitor water clarity?***

As I stated, our pal started us out and it became a fun thing to do; seeing what the lake was like on any particular day. Again, it was interesting to see the annual summaries and to look at the lake throughout the years. It is always a good thing to perform small bits of community service and we do think our little bit helps with the common good.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

**Highlights:**

More eagles stop by. We see kingfishers on occasion. I know a six and a half pound bass was caught by a boy a few years ago. Most of the highlights are our families activities on the lake and at the cottage.

**Dissappointments:**

That film of dead algae that can cover the plants and bottom. Of course, we have the concern of the current low lake level. I know that the fluctuation is normal; but, you can't help worrying if the high volume pumps have diminished the ability of the lake to rise. I do think we've been in a drought or drought like cycle for the last decade or so and do hope we are coming out of it. My forebears pass on that in the end of the nineteenth century they used to hay on what was Plainfield Lake. My parents and Grandparents used to swim and fish in Plainfield Lake in the '30's and '40's and now it's a meadow again. I only mention that because I'm aware of the Plainfield tunnel and the flow of water in it.

*What accounts for your longevity as a volunteer?*

It brings a simple joy of learning and community service. I know I was a little lax last summer; I just had a lot on my plate. I hope to collect more this summer.

*Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?*

Yes. However this would not be the forum in which to do so. Instead, I'd invite you stop by and have a cool beverage and a dip in the lake on a hot summer day.

**Bob Strobush, Apple River Flowage, Polk County**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Lot more weeds here, nothing exotic in there yet. Lots of coontail, big islands of it.

***How do you use the data that you collect?***

I make a report at the annual meeting every year at the lake association. They used it last year to get a grant to get a weed cutter.

***Why did you decide to monitor water clarity?***

My wife volunteered me. She said she was going to help. I used to work quality control at Ford Motor, taking samples and so on.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

There's a lot more pontoons and joyriding where it used to be a lot more fishing, now it seems like everyone has a pontoon, and they pile it full of people on the weekends and ride up and down the flowage. There's a few fishing tournaments though. That was why we got a weed cutter for a nice clear path for pontoons. It's kind of a gathering spot here for phosphorous.

***What are some of the disappointments?***

No, I can't think of anything. It's quite good here because of the weeds and there's good muskie, northern, bass. Computer work's gotten a bit of a pain.

***What accounts for your longevity as a volunteer?***

I'm on the river all the time fishing now, so as far as taking samples, just taking it along when I go. And no one else wants to do it either. Most people work that live here and if they retire they wait till they're too old. I took an early retirement.

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

I was on the lake association board for a while and I kept getting calls that the water was too high, too low, too many weeds, and it's nice to be free of those responsibilities.

**Loren Swanson – Big Hills Lake, Waushara County (133 acres). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Overall, water clarity has not changed very much. Fifteen years ago, USGS noted an increase in nitrogen levels and located the source. Some septic systems were replaced and holding tanks installed.

Lake level is very low this year.

***What changes have you seen on your lake in the last 20 years?***

We have EWM on our lake now. Two years ago we started to chemically treat the larger beds. With treatment and restoration, we hope that the native plants will some day replace EWM.

***How do you use the data that you collect?***

I share the information with the Lake Association. I have always enjoyed keeping track of water clarity.

***Have you seen a change in development on the lake?***

There was a girl scout camp on the lake that owned 1900 feet of frontage. That was developed and sub-divided so that there are now 19 one hundred foot lots. The Lake Improvement Association worked with the developer and the new property owners so that each lot has a green space. We tried to educate potential buyers and the new property owners so that we would all share common values concerning water quality.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

Getting individual property owners to up-grade failing septic systems was a huge accomplishment and good for the lake. The Association did a good job of education and working with property owners.

There are always a few individuals on a lake that don't see the importance of natural shorelines or best management practices for managing stormwater run-off. But on the whole we had good success with education.

I am happy with the changes that Self Help has made. It is much easier to enter data into the database now than it used to be. Jennifer Filbert has done so many good things for the program!

**Robert Tiede, Sissabagama Lake, Sawyer County (719 acres, maximum depth 48 feet)**  
Mr. Tiede collects water clarity and water chemistry data on Sissabagama Lake and has collected 240 secchi readings in his 20 years of volunteering.

***Why did you decide to monitor water clarity?***

Our Lake Association wanted to know if our water quality was improving or declining so taking water clarity readings seemed like the natural thing to do. We contracted with USGS for several years and then we were able to start collecting water chemistry data on our lake through CLMN. Jim Nyberg started helping me collect data so that makes things a little easier.

***Have you noticed a change in water quality and aquatic plants on your lake in the last 20 years?***

I think that the water quality has improved in the last twenty years. The Lake Association decided to do septic checks around the lake which led to many older septic systems being upgraded or replaced. We also have commercial cranberry growers near by which may have impacted water quality in past years. Much of the runoff from the cranberry beds now goes to a small pond south of the lake where pesticides and herbicides are hopefully filtered out

***What changes have you seen on your lake in the last 20 years?***

The aquatic plant growth is variable in the lake. We have rusty crayfish in the lake which impacts the aquatic plant community. The fish community changes as well – the lake is always changing. We work with CBCW to educate boaters at the boat landing.

The fish community changes as well. Lake Sissabagama is a trophy musky lake and gets a lot of fishing and recreational pressure.

***How do you use the data that you collect?***

We have a Lake Association on the lake and I share the information with lake residents.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

We improved water quality by doing the septic system checks around the lake. Water quality also improved with better management practices from the cranberry growers.

We had a scare a short while ago when rumors were going around that we had Eurasian water-milfoil in Lake Sissabagama. Fortunately, that rumor proved to be unfounded and we hope to keep EWM and CLP out of the lake with CBCW efforts.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

There is a small dam on the outlet of the lake. The dam is old and needs repair so that we can maintain the lake level. The WDNR is reluctant to help us replace or repair the dam. We are about 3 feet low with our water level and we want to maintain water quality and property values so having the dam in good shape is important to us.

*What accounts for your longevity as a volunteer?*

I care about the lake. I work full-time so sometimes it is a bit of a chore to get the water sampling done but I know that it is important to keep going and watch the water quality trends. The State is in a fiscal crisis and maybe what the volunteers are doing will help out.

## **Allen and Rosemary Toussaint, Alva and East Horsehead Lake, Oneida County**

### ***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Acutally, I have not noticed a change in these. Our lake tends to be somewhat infertile, however the changes I have noted is what happened to the bottom of the lake. When we first moved here almost 50 years ago, we had pristine rocks not covered in moss. For the past 17 years or so, I have noticed more moss and sediment on the rocks. We have noticed far more boat traffic. We have giant boats designed to kick up waves, much of the onshore beaches are being eroded. The lake is low. The lake used to be 39 feet and now it's about 33 or 34 feet. A number of years ago I talked to a researcher (maybe UW) was doing a study on the effect of large boats on water bodies, so we over the summer we would do near shore and mid lake measurements and we noticed that the Secchi in near shore areas would be different than without boat traffic and in the middle of the lake. Oen of the big changes is that we have fewer weeds than we used to have. Over the years, they're just gone. When we first came to the lake there was only a resort that had a landing and a very primitive public landing. When we came here there were maybe 16 properties, now we have 90. There are a number of private landings for the big boats, most without permits. Unfortunately some of those were by prime walleye rockbars but now those areas are covered with sediment.

### ***How do you use the data that you collect?***

We don't have a lake association, it was only distributed to people I talked to on the lake. Great American Dip-In isn't active anymore but we used to share data with that.

### ***Why did you decide to monitor water clarity?***

Well I think there was an interest in knowing a bit more about the lake. Somebody had been monitoring but no longer did it.

### ***What are some of the highlights that you have seen on your lake in the last 20 years?***

I'm usually out there alone. I try to get out before there are too many people on the lake. Sometime I share the water space with the resident loons; they seem to appreciate what I'm doing because they don't squawk at me. I'm also a loon monitor. We see eagles and ospreys; it's interesting being out on the lake. It's also interesting seeing the technology change – when we started doing chemistry, we used an oxygen thing that is no longer accepted, but now we have a meter. It's a lot simpler and I don't use as much time out on the lake.

### ***What are some of the disappointments?***

I sometimes think that there are a lot of people on the lake who don't really care too much about the lake except for recreation. I see people unintentionally harass the loons, or come very close to me. There's upsides though too because people sometimes stop and ask what I'm doing so I get to do some educating.

### ***What accounts for your longevity as a volunteer?***

I think what I'm doing is important. You want to stay with it and stay with the data. At some time I won't be able to do it, and I hope that we can find someone to take over at some point.



***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

It's important that this [monitoring] be done and any studying should be continued. I feel like I'm doing something important for the lake and for the people who are interested in the lakes and water quality. Now the data is much more accessible too. I think that's really slick.

**James Vennie – Devils Lake, Sauk County (369 acres) and Indian Lake, Dane County (66 acres) and Fish Lake, Dane County (216 acres). Began monitoring in 1987.**

James Vennie III is a Hydrologist with the DNR and works out of the Central Office in Madison. You may recognize the name – Jim helps analyze CLMN data and works on database and web page issues. He understands water- whether it is on the surface of the land or underground. He is a tremendous resource. Jim didn't want to be interviewed and certainly doesn't want to get an award for collecting clarity data on Devils Lake, Sauk County and Indian Lake and Fish Lake, Dane County. He said that he hasn't been a good volunteer for the last couple of years and hasn't taken as many secchi readings as he should have. The interesting thing is that Jim is one of a few CLMN volunteers that doesn't live on a lake. In the early days, Jim took his family with on outings to collect secchi data, now the kids are grown and he just doesn't get out in the canoe so often.

Devils Lake has the best clarity of the three lakes – the lake is contained within the Devils Lake State Park. Since the lake is within the park, there isn't much development pressure. A research project is being conducted on Devils Lake. For the last five or six years the bottom layer of water is siphoned out of the lake. The idea is that fall siphoning will remove some of the phosphorus that resides in the bottom sediment. Phosphorus is a nutrient that fuels aquatic plant and algae growth so removing some of the phosphorus should improve the clarity of the water by removing the nutrient that fuels algae growth. Another research project on Devils Lake is a water diversion project that diverts cleaner water with low nutrient levels into the lake.

Fish Lake has substantial development and agricultural pressure placed upon it. Eurasian water milfoil (EWM) has been found in Fish Lake for as long as Jim has been monitoring. He remembers a time back in 1978 when there was a conference held in Wisconsin to discuss how to control EWM and Fish Lake was a topic of conversation back then.

Jim analyzes lots of water clarity data as well as water chemistry data. He said that lakes are able to renew themselves to a certain degree but that nutrients cycle round and round and there is not a whole lot that we can do about it. The secret, of course, is to prevent excess nutrients from getting into the lake in the first place. Development likely causes an increase in sedimentation, algae and plant growth.

But, Jim said there are lots of things to be thankful for. On the whole, Jim believes that lakes are improving more than they are getting worse. Jim is thankful for the increase in the number of lake associations and lake districts and the interest that people are showing in our water resources. Wisconsin has statutes and laws to protect our lakes and streams and natural aquatic plant communities. Money is available for lake grants and land is being set aside in Land Trusts, Wild Rivers and Lakes and the Lake Stewardship program. People are starting to understand the value of sensitive areas on their lake and Jim is pleased to see that happen. He's thankful that people know water is a precious resource that needs to be protected from invasive plants and thankful for volunteers who love lakes and want to protect them. And we are thankful that we have Jim!

**DAVE and KATHY VOGT – Annabelle Lake, Vilas County (213 acres, maximum depth 30 feet) – began monitoring in 1992**

We were unable to speak with Dave Vogt

**Jim Watson, Jr. Swan Lake, Columbia County (406 acres, maximum depth 82 feet). Began monitoring in 1988.**

***Why did you decide to monitor water clarity?***

I was on the Board of Directors of the Swan Lake Association and recognized the need for monitoring and keeping records. It is something that probably should have been done many years earlier. I spend much more time on the lake than anyone so, I am the logical person to do the monitoring.

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

The most significant changes on the lake happened more than 20 years ago, before any sampling was done or any records kept. The lake changed from a clear water state with vegetation consisting of tule reeds, large leaf pondweed and coontail to a turbid, algae dominated condition with an invasion of carp and Eurasian water-milfoil (EWM). By the 1960s most of the thick stands of tule reeds and other protective vegetation had been rooted out by carp. Shallows matted with milfoil and thick layers of blue green algae became common in the summer and shade out native plants. By the early 1980s, water quality had improved greatly and we no longer see blue green alga blooms. The improvement is likely due to removal of upstream sewage treatment plant discharge. For the last twenty years water clarity has remained fairly steady with poor clarity during warm months. Green algae, carp and EWM are still a problem so Swan Lake is a long way from its original condition. During seasons of severe dry spells, it often remains very clear even into mid-July and native vegetation like the large leaf pondweed will come back in some areas. This shows the potential we could have if runoff of soil and excess nutrients from the watershed could be reduced.

***What changes have you seen on your lake in the last 20 years?***

Most of the small summer cottages have been replaced with huge homes. More and more shoreline is developed into homes and condominiums. Native shoreline vegetation continues to be replaced by mowed and fertilized lawns. Invasion of gizzard shad has made for tough fishing for the larger gamefish that are still abundant in the lake but are so well fed that they rarely show interest in lures. We have frequent high water events during summer and fall and frequent low water events during the spring so there have been poor spawning conditions for northern pike the last twenty years.

***How do you use the data that you collect?***

I keep a baseline of data to compare any changes with activities or changes in the watershed.

***What are some of the highlights that you have seen on your lake in the last 20 years?***

The stocking of musky by a local club and the DNR created a trophy fishery. DNR stocking of walleye fry built up a good population of catchable fish of this desired species. This lake has always needed more predator fish to control the abundant baitfish present. Largemouth bass, always present, are large and abundant now. Smallmouth bass have appeared in good numbers some years too.

***What are some of the disappointments that you have seen on your lake in the last 20 years?***

I am disappointed in the number of northern pike in the lake – likely due to poor spawning conditions throughout southern Wisconsin. The explosion of gizzard shad has hurt the game fishing. Although they are a food source that grow some tremendous game fish it is hard to catch anything. The shad also compete for the available zooplankton needed as food for many of the desirable fish at certain growth stages so they have hurt the success of fry stocking and survival. Also, shad may be causing more algae growth and turbidity due to grazing of zooplankton. Shoreline development and loss of native shore vegetation is also a great disappointment.

***What accounts for your longevity as a volunteer?***

Someone needs to monitor water quality so I stepped forward. I have lived on the lake for over fifty years and spend most of my free time on the water so I might as well be collecting samples!

***Do you have anything else that you would like other citizen lake monitors or people on your lake to know about you?***

Most of the people who live around Swam Lake know me. My family began visiting the lakeshore for camping and picnics in the 1850s. My great grandparents and grandparents built cottages on the lake in the 1920s. I've lived on the lake nearly 53 years. My whole family – my parents, my two sisters with their families, and my wife and I all have homes within 800 feet of the lake. Fishing, swimming, waterskiing and being on the lake during all seasons is the primary focus of my lifetime. I can remember sitting in on Lake Association meetings with my mother and father at a very young age and have been on the Board of Directors most of my adult life.

**Bill Whyte – Webb Lake, Burnett County (781 acres). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Overall, water quality has not changed very much, and it varies from season to season. This year we had low water levels and warm weather and a resulting algal bloom.

***What changes have you seen on your lake in the last 20 years?***

The makeup of the lake residents has changed and there is shift in the recreational population. In the old days, people looking for recreation on their lake would catch fish or frogs. Now, there are more personal watercraft and larger boats. Seasonal residences have been replaced by permanent residences.

We have been treating purple loosestrife on the lake for several years and are educating people on EWM. The best approach to controlling AIS is through education.

***How do you use the data that you collect?***

Data that I collect is shared with lake residents and is used to educate the property owners about water quality issues. Also, the data that CLMN volunteers collect is helpful to fishermen to determine the thermocline, water clarity and dissolved oxygen. I have fished this lake for more than 60 years and use the data all the time.

***Why did you decide to monitor water clarity?***

A landowner wanted to chemically treat aquatic plants in Webb Lake, I wanted to talk to people about some of the consequences in using chemicals in the lake. I retired in 1994 and wanted to give something back to the community. I think it is especially important to educate young people to have a new generation of conservationists.

***Have you seen a change in development on the lake?***

We used to have small cabins and family resorts on the lake, now there are larger, more expensive permanent residences. In 50 years, lakeshore development will consist of all large homes. The small weekend cabin will be a thing of the past. I am also concerned that the values and land ethic is changing – we don't seem to be in tune with nature any more.

The future may consist many more keyhole developments – this will lead to more pressure on our lake with boats and fishermen. We need to plan for the future on how we deal with multiple use conflicts.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

Webb Lake received a EWM education grant and we recruited volunteers to monitor the boat landing. We had many volunteers come forward to lend a hand.

Unfortunately, there has been an increase in the number of chemical permits being issued due to social and political pressure. We need to determine how chemicals are impacting the aquatic ecosystem.

**Stanley Young – White Lake, Marquette County (92 acres). Began monitoring in 1986.**

***Have you noticed a change in water quality and aquatic plants in the last 20 years?***

Water clarity readings have a small downward trend. We still have good water clarity on the whole.

Water level on White Lake is within one inch of being as low as it ever has been in our records.

We used to use a harvester on the lake to manage the aquatic plants, now we use chemical control.

***What changes have you seen on your lake in the last 20 years?***

The lake is pretty much developed. There are 90 cottages/homes on the lake, of these twenty are permanent.

***How do you use the data that you collect and how did you become involved in Self Help?***

I read about the Self Help program back in 1986. I sent a letter to Carolyn Rumery and she trained me. The Lake Association bought the first secchi disk that we used. I share the information with the White Lake Property Owners Association and the White Lake Management District. Samples for chemical analysis have been sent to U.W. Stevens Point Task Force for analysis for the last 20 years.

In 1989, the Association bought a dissolved oxygen meter. That meter is still in use.

***Have you seen a change in development on the lake?***

There is little property left on the lake for development. In the future, more of the residences could become permanent homes.

***What are some of the highlights and disappointments on your lake in the last 20 years?***

The Lake Association and District work hard to educate people about the right things to do to help our lake. Sometimes, it is a little frustrating to get people to recognize that the little things we all can do will help our lake in the long run.