



December 13, 2018 6:00 p.m.

LNNLRCD Meeting

- I. **Call to Order, Roll Call and Pledge of Allegiance** – Bill called the meeting to order at 6:03 p.m.
Board Members Present – Bill Winebaugh – President, Andy Warcaba – VP, Joan Bonnamy – Secretary, Anthony O’Brien – Member at Large, Ernie Richards – Member at Large
- II. **Motion to Approve Agenda** – Bill requested that the following be added to the agenda: Item A. Motion to Approve 11/8/18 Agenda under Old Business and Item A. Bid Request for Engineering Survey of 22 Acres and Item B. Nordman Invoice for \$2,500 under New Business. Andy motioned to approve the agenda with Bills requested additions and Joan seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-01]
- III. **Motion to Approve 11/8 Open Meeting & 11/8 Executive Session Minutes** – Ernie motioned to approve the 11/8 open meeting and the 11/8 executive session minutes and Anthony seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-02]
- IV. **Motion to Approve Treasurer’s Report** – Joan motioned to approve the treasurer’s report and Andy seconded the motion. The board approved it unanimously by roll-call vote. [12-18-03]

V. Board Member Reports

A. Bill Winebaugh

1. Joe Rush – Bathymetric Survey Results – Joe said that he has been with the RCD for a long time – he was here back when they did a bathymetric survey in 2007. They hired the Mapping Network to perform another one this past October to see where they are at and start planning and budgeting for dredging to achieve their end goal that needs to happen for Lost Lake. Joe explained the need for period dredging of a lake due to the natural ecological succession that occurs because they can never stop all of the sediment from coming into a lake and over time it fills it in. If they don’t dredge, at some point, they will no longer have a lake. Although they will never stop all of the sediment from coming in, dredging resets the clock (*on the sedimentation of the lake*). They also want to prolong the time between dredging operations through upstream programs. When The Mapping Network surveyed the lake, they took depth contours (which will be made available on a larger scale on the RCD’s website at a later date). Joe asked The Mapping Network to mark (*on their maps the locations of*) any anomalies that they recorded with the acoustic survey equipment so that when the RCD gets a dredging contractor out there, the contractor can isolate where problems could be. The Mapping Network did that at no extra cost. Joe said that the sediment seems too accumulate more where the old earthen dam used to be, which is good for them when it comes time to dredge.

The following are three different areas and the levels of sediment measurements take from 2007 and 2018.

Area	2007	2018
Upper Reach (Clear Creek)	46,061 cubic yards	61,593 cubic yards
Schings Park Reach	71,004 cubic yards	92,135 cubic yards
Middle Area (by old earthen dam)	40,800 cubic yards	69,642 cubic yards

If you calculate out the differences in cubic yards of silt from 2007 to 2018, it comes out to an average of 6,000 cubic yards of material deposition in the lake a year; however, the 2007 survey was before the 2009 flood event that took out 12 ft. of bank, the bridge, and a sea wall. There was a lot of material deposited on that event (*that would affect the average*). 1. Now that they know how much material is there, they have to determine how much they are going to take out. Just because they have 61,593 cubic yards in the Upper Reach, for example, doesn’t mean that they’ll take that whole amount out. The amount that they take will be less than that because there will be dredge limits off of the shoreline. 2. Also now that they know how much volume of material is there, the next step is for them to work on

engineering a dredge spoil site and they will be going out to bid for engineering companies to survey the 22 acre site that the RCD owns that is located just west of the church that is on the northwest corner of Lowden Rd and Flagg Rd.

Audience Questions:

Wes Jaros – 1. Do only manmade lakes have to be dredged or do natural lakes with incoming streams suffer from the same fate? **Joe** – **they would suffer from the same fate because you have moving water. The speed at which it would fill in would depend on land use upstream and how the banks are established. For example, their watershed is predominately made up of agriculture and livestock grazing. Clear Creek - in 2006, he took pictures of areas upstream of a ton of cows and bare soil right up to the water. That area is now owned by Nachusa and they've stabilized the banks. Babbling Brook - The RCD did work on Babbling Brook to reduce the flow of water. It's the same with a natural lake, if the land use is different or changes, then the impact on it changes. It's natural for a lake, either man-made or natural to fill in over time.** 2. Wes - If a lake has outlet stream, does the silt just never make it out of the lake and then settles there? **Joe** - **(yes), pretty much, until a flood event picks it up and carries it out. Joe said that that happened on a portion of Lost Lake where it has gotten shallow enough on the upper reach that it doesn't settle down there – it keeps shifting downstream further because they don't have the capacity anymore for it to settle there.** 3. Wes – Some people have said that the lake used to hit a depth of about 20 feet down by the dam and he thinks it is measuring about 15 ft. (*now*) – why wouldn't they dredge there as well? **Joe** – **a lot of it comes down to cost because it's going to be very expensive to dredge anywhere in the lake and the water quality and habitat improvements of the lake are best served by deepening out the shallower areas (if you get into water that is 6 foot or deeper, the impact of wave action is reduced). Also, he saw that records indicated that it used to be 16' by the dam, he doesn't know that it went to 20'.** 4. Wes – Is it because of all of the silt that the water is murky? **Joe** – **I believe it is. Between the natural resuspension of sediment and carp keeping it suspended, it does reduce clarity. He can't promise this, but he does think that if they do a dredging program, they will see a difference in the normal water clarity.**

Jerry Sellers – 1. Are you suggesting that the RCD property (*on the 22 acres*) can hold all of the dredging material out of 3-4 basins or just the first basin? **Joe** – **that's a good question – it's slightly premature as we don't know what the capacity will be there, but based on some of the work they have already been doing and speculation based on topographical work, the volume of the material will probably have to be a two-phase program – I don't think that they are going to get all of this (the *material*) into that pond because of the volume of the material and the capacity of that area - how big it can be and how deep they can make it. It's still premature, but I expect that there is a possibility that it will be a multi-year dredging program.** 2. **Jerry** – we (the RCD) put 52,000 cubic yards of material into a pit on the property and there was another pit they filled in and even with the pits they created a small hill there – there's a heck of a lot of material there. **Joe** - **now you can see the difficulty of a dredging program – you can't just dig this and put it there – there's a lot of cogs in the wheel that have to come together to make it effective.** 3. **Jerry** – Are they still not allowed to take the dredged material over the dam? **Joe** – **you will not be allowed to pump it into the creek but they may be able to do a geo-tube situation and pump into geo-tubes to dewater into the creek under a discharge permit – that could be an option.** 4. **Jerry** – At \$3,500 a geo-tube and you cut it open and it's useless – not a good deal. **Joe** – **but there are a lot of factors associated with that like economy of scale, let's say hypothetically, you have (to pay for) a \$3,500 geo-tube but you were able to get all of the work done while the contractor was here and not have to mobilize him again at \$120,000 or whatever that cost could be - you may weigh those options at that point.** 5. **Jerry** – Have you had any conversation with the Nature Conservancy about going onto their property and pumping? **Joe** – **I personally have not had a conversation with them on that (Bill Winebaugh concurred that they have not at this time).**

John Harris – Besides the silt retention pond, with what they know now, can you not get some estimates on what it would take, whether they do it in sections, some costs to dredge? **Joe** – **We are working on those budgets now - we have contractors willing to talk to them about approximate costs per cubic yard to pump those distances. We actually had a contractor up here to look at the site to make sure that they were comfortable that they could pump the distance that they would need to pump up there. That's not going to be a hard number at this point – it'll be an estimate, but we can come up with that.**

Frank Durkin – 1. We all are aware that we have two inlets going into the lake. The RCD spent about approximately \$600,000 4-5 years ago, improving Babbling Brook, preventing most, if not all, of the silt coming in. Out of the two inlets coming in (*Babbling Brook and Clear Creek*), which is producing the most silt as of today, to the best of your knowledge? **Joe** – **A speculative, not scientific assessment of it would be that Babbling Brook probably would**

have been producing the most silt because of what Nachusa is doing down here. They've made substantial improvements as well, but I have not walked that tributary in 5 years so I'm not sure what the change has been there. But they are comfortable that the work that has been done up on Babbling Brook has changed the amount of material that is able to come down; we've reduced the flow. The agricultural producer upstream has said that the day that they put that in, they saw a substantial difference in the normal flooding that they would see. 2. Frank Durkin – Above Babbling Brook, has there ever been a consideration to put a silt basin up there somewhere vs. what's happening here at Clear Creek, which has a silt basin? Joe – You guys have a meandering area that can help settle silt out that you maintain in Clear Creek, is that what you are talking about? Frank - Yes. Joe – There was a silt basin put in (on Babbling Brook) on that grant on the Bettner Farm – it's a 2 ½ acre silt basin. 3. Frank Durkin – Is it being maintained? Joe – It's under his (*Bettner's*) responsibility to maintain that if it ever fills in, but I'm sure there's material filling into that at this point. The entire project reduced the velocity of water and how quickly it's moving, which allows more material to stay on site. We stabilized steep banks, which keeps material on site instead of coming into the pond, so all of that together is making a difference on the amount of material that could come in on Babbling Brook. 4. Frank – So if I understand, we have a balanced situation as it relates to silt basins in both the Clear Creek and the Babbling Brook. Joe – The efficiency of the basin on Clear Creek – I don't know how efficient that is and for a few years the RCD wasn't cleaning it out every year – I think they are back to cleaning it out every year (Bill confirmed every year). That maintenance will make a difference on Clear Creek. I don't know how efficient each basin is in comparison to each other, but the 2 ½ acre pond was designed with an overflow pipe and when the volume gets bigger than the overflow can handle then it backs the water in the pond up at least 5 feet and then the water is slowly released allowing material to settle out reducing the velocity of the water that's going downstream. That is an efficient basin; I don't know how efficient the one is on Clear Creek. If they have to clean it out every year and their getting material, then it's doing something.

Jerry Sellers – I approached the Orland about putting in a silt basin on their property and had an engineering firms come out, reviewed it with Orland, and found that it would cost \$12,000 for the engineering and would act similar to a septic tank where the stuff comes in and you put an overflow tube and it goes out and would have to be cleaned out periodically. In order to get it cleaned out, they had to have a right-of-way from Lowden back to that property and Orland would not give right-of-way or a lease in perpetuity to the RCD for the silt basin and the right-of-way to get to it. That killed that idea. Joe – we can't control what upstream people will do, but building the relationships and the cooperation is important. That what was so nice about the Bettner property – there was investment there but when you look at the dredging and over time what that's going to settle out, it'll increase the amount of time before the next dredging program because you've done the upstream work.

John Harris – Why wouldn't you approach Nachusa and ask them to put a similar retention pond on their property? Joe – They can be approached and it can be discussed; (*however*), they have a very solid plan of how they want to move forward and a lot of times that doesn't fit in with their plan. Bill – The RCD has a plan too and it's three phase - where we're at, where we want to be, and how we're going to get there. At this point in our plans, we are on "where we're at". The next step is where we are going to go. Joe – I've been asked this before by some of the leadership (it's been several years now), I was called and asked, "What is the number one thing we can do to make the best improvement on the lake?", and I said dredging. The other thing we are going to work on too in getting this scope together is cross-sectional diagrams based on the data points of the survey. We've improved Babbling Brook and Clear Creek – now let's get it dredged.

Jerry Sellers – 1. Was there anything on the Babbling Brook project grant in terms of a year over year maintenance program that had the pond depth up there measured? Joe – No, that wasn't a part of the maintenance plan on that; however, I believe Ed would allow us to take a boat out and do some sampling to see what the sediment changes have been. Keep in mind, you have 3.8 miles of stream there and of that they stabilized so much of those banks, remeandered (*the stream*), reduced the velocity of the water, so the basin is going to catch what's coming through, some may still go out in high events, but if there's not a lot of material, it doesn't mean the pond is ineffective. It may mean that the upstream BMP have made that big of a difference. There were 5 six ft. banks of sediment, that would just fall in during a flood, that are now armor ripped with slopes, allowing the water, instead of being caught in this 5ft. canal, it goes out (sloped) so that the velocity of water slows. 2. Jerry – Has there ever been any studies done on the hydraulic residency of Clear Creek vs. Babbling Brook? Joe – I wouldn't say that there has been hydraulic residency testing; however, there is information out there on the watershed size and, based on that, (you can get some calculations), a lot of water coming through. 3. Jerry - The hydraulic residency of Clear Creek and Babbling Brook are very important

because it says how far it drives sediment into the lake and how fast that water is moving. I disagree with you on the amount of sediment that is coming in from Babbling Brook and Clear Creek – the hydraulic residency of Clear Creek is much greater than Babbling Brook and that's why that stuff is piling up so close to the bridge down there. Once this lake comes up to pool, there's not enough push of hydraulic residency (except every 300 years when we have an extreme rain) to clean the lake out. Joe asked what Jerry meant and Jerry said when they had that event, it flushed the lake – if we had not had that ... failure of the dam flushing the lake, we'd have a lot more sediment in there than we have. **Joe - that might be why they have a lot more deposit here (in the middle section of the lake). You are right, Clear Creek is a larger watershed, there's more volume of water coming through Clear Creek because there is more land surface draining into Clear Creek but both of these areas are known that if it rains, that lake's coming up fast because of the input. You have a 100 to one acre ratio of watershed land (draining into the lake) for every one acre of lake. That's why, with the hydraulic residency flush that Jerry was talking about, you get such a high-water event at any given time.**

Wes Jaros – Based on your experience in the industry, specifically Lake Carroll, is this a big job and how does it relate to what Lake Summerset is doing right now in terms of cost, discounting what it would cost (*for Joe's services*). **Joe** – there is a lot of material (in Lost Lake) – if you have a small job that's difficult to pull the material out vs. Lost Lake, this (*Lost Lake*) could be an easier job in some capacity if they can pump it to the basin, the basin holds the material, and they don't have to stop or use polymers. All those play a factor into it and it's still premature to have a feel but there is a lot of material here – there is no question about it. There is enough material here that the mapping company that does this all over North America all the time said, "That's bad – there's a lot of material there." They normally have a contractor mobilization fee and a cost per cubic yard to pump the material. **2. Wes Jaros** – When you spoke a few months ago, I think the plan was to get that piped down to Flagg Rd and then down to the RCD's Flagg Rd property. Is there enough force with the pumps (*to get it there*)? **Joe** – Yes, that's why we talked to the contractors. There are a lot of different dredges out there with different sizes and pumping speeds. You can get an idea of what it (the cost) can be, but there are still a lot of variables. Once they figure the costs, then they can figure out the financing and a timeline.

Frank Durkin – You (Joe) said earlier that Clear Creek has more volume of sediment coming in than Babbling Brook. **Joe** – I don't know that the volume of the sediment is different but there is a (*larger*) volume of water because there is a much bigger acreage of watershed feeding that area. **Frank** – comparing Babbling Brook and Clear Creek, what has more volume of sediment? **Joe** – This (the middle basin) is difficult because it's encompassed in one area. You have 92,000 cubic yards here (*at Schings Park*) and almost 62,000 cubic yards of silt (*in the upper area*) – if you pull this out you can see that there is a difference here but the amount of material looks very similar. **2. Frank** – We would have to increase the efficiency of the silt basin in Clear Creek – instead of having the silt taken out once a year, maybe it should be twice a year – that's got to be a lot cheaper than what we are anticipating of dredging the lake on an overall basis. **Joe** – that won't get rid of what is already here. You need to get this out and then continue to do what you can to reduce the amount coming in to increase the time between dredging. **3. Frank** – I understand what we have ahead of us - I'm looking at the future. – **Joe** – what's you saying is smart – just because you dredge doesn't mean you stop looking at what's happening and how you can make it more efficient. Once they get done with this (*complete this dredging operation*) and build the new basin (*at the 22 acres*), they will have that basin and that will be a cost now that they won't have to deal with later.

Jerry Sellers – (*The Flagg Rd Silt Basin on Clear Creek*) is only five acres. I met with Nachusa to try to lease another 25 acres to increase the size of that and they did not want to entertain it. **Joe** – I do not discount the need to have a discussions with them; however, they are very set on their plans and it might be very difficult to change that view unless there is some benefit that fits into their plan.

Joe Olliges – What was the cost for the bathymetric survey? **Joe** - \$15,900 (*not including Joe's time*).

Jerry Sellers – Did they take all the points that were made previously? **Joe** – I'd have to look at how many physical points they took, but he knows it was over 500,000 data points electronically on top of all of the yellow dots that are pinpointed as well as labelling the obstacles at no extra charge.

John Harris – Could the obstacles be structure that the fishing club has put in? **Joe** – It could be and it could be old stumps from old trees.

Joe Olliges – The fishing club has GPS coordinates of all the structure that they've put in. **Joe** – that's what we need to compare with the obstacles that they have found to see if it's the structure. Ultimately, it doesn't if it's

a fishing club structure or a log, by having that information and getting it to a contractor, it takes some of their guesswork out and they are more comfortable with their bidding process, which could reduce their cost.

Bill – I have that information if and when we get to that point.

6:48 – Recess for Meeting

6:51 – Reconvene Meeting

2. Pop Machine – Great Lakes Coca Cola provides the pop machine and they have a minimum order on how much we have to buy and we are unable to meet that minimum order on a regular basis so that are refusing to deliver to us anymore; however, we have some time as they are in no rush to pull their machine. The board needs to think about whether they want to get rid of the machine all together or whether they want to purchase a machine and stock it themselves, or find the Pepsi distributor or a local vendor to see if they'd be willing to put a machine in.

3. Campground Washout – At the campground, they had a main break where the outside faucet is at, causing it to wash out and make the cement pad sink a foot. Bill met with Shawn and Jeff Winterland and Jeff feels he can fix it under \$1,000 to include replacing the valve, installing a new cement pad, putting in the metal barricades back in and leveling it out. The RCD doesn't necessarily have put the faucet back in; but, they are required by the state of Illinois that if they campgrounds to furnish running potable water and bathroom facilities. So if they decide not to put that pump in, they have to get rid of the campgrounds. Ernie asked if they needed to vote on that and Bill said that he already told Jeff to fix it unless the board tells Bill to stop him. Walt Shambaugh – what's the revenue off of the campground each year? Bill – Minimal. Becky said it got rented out about 8 times (*it actually was rented out 6 times*). Bill said we've (*the RCD*) got some long range plans that we're going to discuss at a later date regarding the campground. They are not required to have it; it's a perk of the community, people do use it and enjoy it, it sees a minimal amount of camping, they have a lot of bird watchers, dog walkers, and mushroom hunters. Walt said that they'd get more use out of it if they'd take the chain down. Bill said that the reason that they have to put the chain up is that they have reoccurring vandalism (*with an ATV*).

4. Fish Stocking – In October, Bill and Ernie helped Logan Hollow put in 220 striped bass, 700 bluegill and 700 crappie into the lake. They only paid for 200 bass, 500 bluegill, and 500 crappie, but Logan Hollow very generously gave us what was left in the tank because it's easier for him to haul an empty truck home than one full of water.

5. Vandalism – They had minor vandalism at the LCC, nothing of any consequence, but in an effort to stem it from escalating into something more serious, the front door, going into the mezzanine that holds the pop machine and the restroom, will be locked. John Harris asked why they have a pop machine and Bill said the pop machine will not be utilized. Becky suggested that they could put it outside and Bill said that they are not going to put it outside because it's not their machine and if they put it outside and something happens to it, they are responsible.

B. Andy Warcaba – No Report.

C. Joan Bonnamy – Joe Rush and Joan will be walking the Babbling Brook area next week.

D. Anthony O'Brien – No Report.

E. Ernie Richards – Ernie said that three deer have been harvested from the hunting area so far. Bill added that one was also lost. John asked if there has been any more discussion on restricting the amount of archers that can out there. Bill said not at this time – at the last meeting the board decided that they would discuss it in the spring some time. Ernie said that there are very few geese on the lake – they have headed south. He hasn't seen any sign of beaver either. The shad have had a die-off too (which is normal). There is about 1 ½ inches of ice in some places – not safe to walk on.

VI. Old Business

A. Motion to Approve 11/8/18 Agenda – Joan motioned to approve the 11/8 agenda and Ernie seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-04]

VII. New Business

A. Bid Request for Engineering Survey of 22 Acres – Andy said that as Joe was explaining in his presentation, the next step of the dredging process is to have the 22 acres surveyed to get elevations for a potential dredge dewatering pond. Ernie motioned to approve the request for bid to survey the 22.26-acre site on Flagg Rd for a potential future silt dewatering pond, to be published in the local paper for 30 days and to hold a bid opening at the RCD's meeting on January 17th at 6:00 p.m. Anthony seconded the motion and the board approved it unanimously by roll-call vote. [12-18-05]

B. Nordman Invoice for \$2,500 – Nordman removed the silt out of the Flagg Rd Silt Basin on Clear Creek this fall and they are going to let it dewater before removing it in the spring. The pile of silt looks pretty big – Andy thinks it's his best year. Frank asked if they would consider doing it more than once a year and Andy said that they would consider that. Andy motioned to approve the Nordman Excavating invoice for \$2,500 to remove silt from Clear Creek at the Flagg Rd. silt basin and Bill seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-06]

VIII. Guest Comments

John Harris – Dredging – John asked if there a timeline for dredging? Bill - not at this time – there are too many variables and the board is learning as they go and they want to do it right. It's going to be a long term project and by establishing a silt basin on the 22 acres, they are giving the community hope for the future because they won't have to deal with later on. **Thickness of Ice** – Is it the RCD's priority to post to monitor the thickness of the ice for ice fishermen? Bill – no, because of liability. There are springs out there and underwater current so the ice is not a consistent thickness

Wes Jaros – Basketball Court – Wes asked how the decision to convert the tennis court into a basketball court was made. Bill said that they got both positive and negative feedback on the basketball court installation. It was a cost-effective way to utilize the space for the greatest good of the community. The major cracks will be filled in the spring, it will be resurfaced, and there will be new lines added as well as lines for other games such as four-square, and hop-scotch. Will this eliminate it for use as a racket court for tennis or pickle ball and Bill said yes – the nets were taken down. It was just sitting there not getting used and now there is the opportunity for the community to do something with it.

IX. Motion to Adjourn – Andy motioned to adjourn at 7:09 p.m. and Joan seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-07]

12/13/18 Motion List

1. Bill requested that the following be added to the agenda: Item A. Motion to Approve 11/8/18 Agenda under Old Business and Item A. Bid Request for Engineering Survey of 22 Acres and Item B. Nordman Invoice for \$2,500 under New Business. Andy motioned to approve the agenda with Bills requested additions and Joan seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-01]
2. Ernie motioned to approve the 11/8 open meeting and the 11/8 executive session minutes and Anthony seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-02]
3. Joan motioned to approve the treasurer's report and Andy seconded the motion. The board approved it unanimously by roll-call vote. [12-18-03]
4. Joan motioned to approve the 11/8 agenda and Ernie seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-04]
5. Ernie motioned to approve the request for bid to survey the 22.26-acre site on Flagg Rd for a potential future silt dewatering pond, to be published in the local paper for 30 days and to hold a bid opening at the RCD's meeting on January 17th at 6:00 p.m. Anthony seconded the motion and the board approved it unanimously by roll-call vote. [12-18-05]
6. Andy motioned to approve the Nordman Excavating invoice for \$2,500 to remove silt from Clear Creek at the Flagg Rd. silt basin and Bill seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-06]
7. Andy motioned to adjourn at 7:09 p.m. and Joan seconded the motion. The board approved the motion unanimously by roll-call vote. [12-18-07]