

**MINUTES OF REGULAR MEETING
OF THE
COMFORT LAKE - FOREST LAKE
WATERSHED DISTRICT**

Thursday, November 17, 2011

1. Call to Order

The President called the November 17, 2011 regular Board meeting to order at 6:30 p.m. at the Forest Lake City Offices, 220 North Lake Street, Forest Lake, Minnesota

Present: President Richard Damchik, Vice President Jackie Anderson, Secretary Wayne Moe, Treasurer Tom Lynch, and Manager Jon Spence

Absent: None

Staff: Doug Thomas (CLFLWD), Lisa Tilman (EOR), Chuck Holtman (Smith Partners), Mark Lobermier (Wyoming), and Jason Naber (EOR).

Other: None

2. Setting of Agenda

The President called for the reading and approval of the November 17, 2011 regular Board meeting agenda. President asked if there were any changes or additions. Administrator Thomas requested the addition of an agenda item under New Business to discuss beaver dams on the Sunrise River. Motion to approve the agenda as amended was made by Manager Moe and seconded by Manager Lynch. Discussion. Upon vote, the motion passed.

3. Reading and Approval of Minutes

The President called for the reading and approval of the minutes of the October 27, 2011 regular Board Meeting. Motion to approve the October 27, 2011 regular Board meeting minutes was made by Manager Moe and seconded by Manager Spence. Discussion. Upon vote the motion passed unanimously.

The President called for the reading and approval of the minutes of the November 9, 2011 Board Workshop for the discussion of regulatory framework for shoreline and floodplain regulations in the CLFLWD. Motion to approve the November 9, 2011 Board Workshop meeting minutes was made by Manager Moe and seconded by Manager Lynch. Discussion. Manager Moe noted a spelling error on page one and the word “underling” should be “underlying”. Attorney Holtman noted that in the 1st full paragraph on page 3 in the fourth line it should read “commented that enforcement is within the discretion of the enforcement authority and it is always better if the District and City were to work together to enforce a violation,” Manager Moe amended his original motion to include the changes as noted. Amended motion was seconded by Manager Lynch. Further discussion. Upon vote the motion passed unanimously.

4. Public Open Forum

Manager Damchik opened the floor to anyone in attendance wishing to comment on items that are not already scheduled to be discussed as part of the meeting agenda. Hearing none the President closed the public open forum.

5. New Business

a) BMP Cost-Share Applications

Whitehill – BMP C-S Project, Payment Authorization

Administrator Thomas noted his staff memo and project profile in the Board packet. He noted that Mr. Whitehill has completed his streambank erosion control and water quality buffer project at his property at 6348 236th St. Circle, as amended by the Board at its October 27, 2011 meeting. Staff is recommending final payment in the amount of \$918.24.

Motion to approve final cost-share payment of \$918.24 to Mr. Whitehill upon successful completion of his streambank stabilization and restoration project was made Manager Anderson and seconded by Manager Spence. Discussion. Upon vote the motion passed.

b) 2011 MAWD Annual Meeting – Attendance & Voting Delegates

Administrator Thomas noted his staff memo in the Board packet. After discussing attendance for the 2011 Annual Meeting Manager Spence moved to have Manager Lynch serve as the District's voting delegate and instructed Administrator Thomas to forward to MAWD the 2011 Certificate of Membership & Delegate Appointment Form. Motion was seconded by Manager Moe. Discussion. Upon vote the motion passed unanimously.

c) 2011 MAWD Resolutions

Administrator noted his staff memo in the Board packet. Similar to 2010 he provided the Board with a summary of the 2011 resolutions that will be discussed and voted on at the Annual Meeting along with a recommended position for the CLFLWD to take on them as a way of providing voting instructions to the District's delegate/s that will be attending the meeting. Manager Anderson commented that the positions and voting instructions looked fine except that she had a concern with resolution #7 in that it specifies the use of Clean Water Funds. She stated that she is concerned with earmarking the use of Clean Water Funds for specific projects by MAWD, especially activities that are a responsibility of a State Agency. After discussion it was the consensus of the group that although they support the purpose of Resolution #7 its delegate should state the District's opposition to including the reference to the use of Clean Water Funds found in the resolution.

d) Beaver Dams on the Sunrise River Upstream of Wyoming Blvd. (Co. Rd. 22)

Administrator Thomas pointed out the sheet with photos of the dams that was handed out prior to the meeting. He explained that Manager Spence had noted at the previous meeting what appeared to be a beaver dam south of Wyoming Blvd. on the Sunrise River. He also had received a call from Steve Schrieber, a resident on Little Comfort Lake, to report the presence of the beaver dams along with his concern regarding their impact on lake levels.

The site was visited by staff on November 15, 2011 at which time it was determined that two beaver dams/obstructions were present south of Wyoming Blvd. in the river and that they were holding back water (approximately six inches). At the time of the visit he met George Nielsen a resident on Comfort Lake who expressed his concern over the dams causing high water on Comfort Lake and its potential impact to his property. Administrator Thomas explained that the reason for bringing this to the attention of the Managers is to seek some direction on what they would like the District to be doing in this situation. The main question is if this is something that the Board wants staff to pursue as the dams are technically outside of the legal boundary of the District. He explained that the District does have the authority to work outside of its boundaries on things that have a direct bearing on protecting and/or carrying out its water management responsibilities. He mentioned that he had discussed this with the DNR and they would have no objection to removal of the dams however even though this is public waters they are on private land and likely require permission from one of the riparian landowners. He also noted that this could be establishing a precedent with regards to the District's future role with beaver dams that occur on other public waters in others parts of the District. He further pointed out that although the Sunrise is listed as public waters if we decided to go in and remove the dams we would need to work with the adjacent private property owners.

Manager Anderson asked if the location is in the Sunrise River. Administrator Thomas responded that it was. Manager Anderson then stated that the bed of the river is not privately owned. Administrator Thomas commented that he thought it was. Manager Anderson commented that she believed it would be under public ownership. Attorney Holtman commented he did not know specifically in this case but the definition of state ownership goes back to an archaic definition of navigable at the time of statehood and it would be the DNR or courts to make that determination. Attorney Holtman Asked Administrator Thomas if he knew. Administrator Thomas commented that he did not and that we would have to do some more checking to figure that out. He was assuming that since all of the property lines shown in the Chisago Co. GIS system go to the center of the river and that it does not show it as being meandered in the county plat book, as is the case with larger lakes, he had assumed that the land under the water is privately owned. He went on to say that he also thought that if it were necessary that we could discuss this with the DNR and the City of Wyoming and possibly get an MCC crew to walk up the river and remove the dams without going onto the adjacent upland.

Manager Anderson asked that doesn't that only apply when the water dries up and exposes the bottom like what is happening with White Bear Lake. She further commented that her understanding is if the waterbody is nonmeandered then if the water goes down the property owner has some use of the bed of the waterbody but if there is still water there then anyone can go on it. Administrator Thomas commented that that may be the case but there has been a lot of discussion about that in the State and cited the issue of duck hunting and whether that means you can float a boat or can you walk on the bottom of the waterbody and that he was not aware that this has ever been fully resolved.

Manager Anderson asked why don't we just have the DNR do it. Administrator Thomas commented that he asked them that and said they would not because they consider it to be natural. She then asked if the landowner can be ordered to remove the beaver dams. She further commented that if the question about access is so balled up can a unit of government order the landowner to remove it. Attorney Holtman commented that if the dam is on the bed of the stream and on private property it is a question of private law and that the upstream landowner being flooded can come forward, similar to if a tree fell in the river, and seek action to require the landowner to remove it. Manager Anderson asked what if it causing upstream damage. Administrator Thomas commented that it was his thought that 1) he would talk to the City, 2) write a letter to the two property owners that border the river identifying that the dams are present, that they are an obstruction, and to seek their permission to allow access across their property.

Manager Anderson asked if there is any way to determine if this is navigable water. Administrator Thomas commented that we can and asked if the Board was comfortable with having the Attorney spend some time

helping him answer that question. Manager Anderson commented that she felt we should. There was a consensus amongst the Managers to pursue finding out the answer to the question of navigable. Manager Anderson then commented that if it is private is she correct in thinking that it would be the responsibility of another private landowner to sue the owners of the property where the dams are to get them removed if it is a non-navigable river. Attorney Holtman responded yes, but commented that the District can still within its discretion spend funds to take out the dam if you decide that it has some water resource impact and you determine that it is within your jurisdiction, however you are likely to think like the DNR might as to whether you are setting a precedent.

Manager Lynch commented that if we go ahead and do this research then we at least have the information for both this situation as well as others that may come up in the future knowing what we can and cannot do along with what risk we might be taking. Manager Anderson commented that this is puzzling in that over the years there has been a large beaver dam that would form near School Lake and Mike Muller would be called and he would arrange to have it removed. She further commented that she does not understand the difference but that we do need to get this question resolved. Attorney Holtman commented that if the lot lines as described by Administrator Thomas are drawn to the middle of the river and the District wished to advance the notion of the stream as navigable and the bed is owned by the public the District would need to make an adverse claim. He further commented that he thought the DNR prefers not to make these judgments, and that it requires a lot of historical research and ultimately means going to court with some form of title action and the DNR probably does not have a lot motivation to do so. He commented that he would be happy to look into to it but in the short term it might be best to discuss this with the DNR to see if they have a view and then decide how much more time you want to spend going into the historical evidence in this situation. Manager Anderson commented on how can you answer that without first getting the first question answered.

Manager Lynch asked Administrator Thomas, based on tonight's discussion, does he have a better idea of what are the questions that need to be posed to the DNR in order for us to get the information we need to further the discussion. Administrator Thomas commented that yes he has a much better idea on what to ask the DNR and he will do so and try to do it in such a way as for their response to be more of a formal answer and if necessary ask Attorney Holtman to discuss this with a DNR Attorney. Manager Spence asked if it would still be worth our effort to contact the two landowners. Administrator Thomas commented that he planned to do that.

6. Old Business

a) NBL12/Mattson – Pasture Management Services, Fencing Payment Approval

Administrator Thomas noted his staff memo in the Board packet. He noted that the fencing portion of the project was completed by Pasture Management Services. With the fencing portion of the project completed we have finished the livestock exclusion and prescribed grazing component of the project. Portions of the project that were previously completed included 4 water quality check dams/wetland restorations, 6.7 acres of critical area seeding, and a rock cattle crossing. The remaining portion of the project to be completed are the two water quality/wildlife ponds, which are expected to be completed in the winter of 2012. Based on completion of the project and sign off by the Chisago SWCD, staff recommended payment in the amount of \$8,224.78 to Pasture Management Services.

Motion to approve payment to Pasture Management Services in the amount of \$8,224.78 for the fencing portion of the NBL12/Mattson water quality improvement project as previously approved by the Board of Managers was made by Anderson and seconded by Manager Moe. Discussion. Upon vote the motion passed unanimously.

b) FL44/Winberg – Scandia Trucking Payment & Peterson Farm Equipment Partial Payment

Administrator Thomas noted his memo in the Board packet. He noted that the stock pond and cattle access lane portion of the project has been completed by Scandia Trucking & Excavating and signed off on by the Washington CD and that staff is recommending payment to Scandia Trucking in the amount of \$3,965.00. For the cattle exclusion and prescribed grazing portion of the project Peterson Farm Equipment has completed the installation of all of the post and corners assemblies needed for the 2200 feet of fencing and has requested partial payment for the work that has been completed to date. Staff recommended partial payment to Peterson Farm Equipment in the amount of \$2,500.00 for work completed to date on the fencing. Manager Anderson requested that in the future when projects are brought to the Board for approval that a map with the project location and sub-watershed be included in the Board packet.

Motion to approve final payment to Scandia Trucking & Excavating in the amount of \$3,965.00 for the construction of project stock pond and access lane, and partial payment of \$2,500.00 to Peterson Farm Equipment for construction of project fencing associated with the FL44/Winberg water quality improvement project as previously approved by the Board of Managers was made by Manager Spence and seconded by Manager Lynch. Discussion. Upon vote the motion passed unanimously.

c) Moody Lake Feasibility/Engineers Report

Engineer Tilman handed out a treatment options memo and then provided an update on the Feasibility/Engineers Report based in part on questions that were raised by the Managers at their September meeting. Engineer Tilman first provided EOR' response to the questions that were raised earlier which were:

1. Why was the seechi disc reading better than the other two measures of water quality? She explained that unlike phosphorous and chlorophyll, which are measured in amounts per unit of measure, the seechi disc, which is a measure of clarity, does not respond in a linear relation to the amount of chlorophyll (algae in the water). In other words clarity will not continue to decline as the chlorophyll gets past a certain point.
2. Why are the fish survey numbers different? She explained that the two surveys differed in that one of them counted the number of fish by type and the other measured their abundance by biomass/weight. The main reason there is a big difference is that you only have to have a few large fish, such as northern's to get a high biomass number as compared to a lot of small stunted fish such pan fish.
3. Which is more reliable/effective alum or aeration? Engineer Tilman explained the principles behind the two treatment options and discussed the importance of the watershed vs. in-lake loading of phosphorous and how it can negate either treatment option if it not controlled.

Manager Anderson asked why not do both. Engineer Tilman commented that you not ordinarily do both treatment options together and explained that research has been conducted for a long time on alum, as compared to aeration, and that what has been found is that many of the older treatments were less effective than planned because of under dosing, which was caused by having to control ph in the lake and that we now have buffering agents that allow for the higher dosing rate that is needed to effectively treat the sediment. Manager asked what the buffering agent is and Engineer Tillman responded that she could not remember off the top of her head what the specific chemical was. Manager Anderson asked if it presents a problem/concern and that it would be good to know. Manager Lynch asked if the buffering agent makes the alum less effective. Engineer Tilman responded that it does not, and all it does is counter balance the ph level in the water column after treatment and that it is approved by the PCA.

Engineer Tilman went on to describe the aeration system and the principle that it uses to control phosphorous release from the bottom sediments. She went on to discuss the various types of systems and the cost. She further commented that one consideration with aeration is to make sure the sediment has enough iron to keep the phosphorous in the sediment when oxygen is introduced during the summer months. Manager Anderson asked if iron can be added. Engineer Tilman responded that yes it can and it would be recommended in this situation if aeration was the chosen option. Manager Anderson asked what the downside of aeration is. Engineer Tilman responded that the main issue is that aeration is not as well studied and there are less papers published on it to gauge its overall effectiveness and it is still thought of as being a bit experimental. Manager Anderson questioned if there is a downside and commented that she remembers that this was a treatment option that was recommended back in the 1990's by Steve McComas in one of the Districts' water quality studies. Lisa commented that although that may have been there has been more study which has identified the importance of iron in the bottom sediments and that McComas is actually involved in experimental work using iron to control phosphorous in Rush Lake in Chisago County.

Engineer Tilman continued with her update and discussed the importance of winter aeration which DNR Fisheries believes would be beneficial to maintain a better fisheries structure which would help with water quality. Manager Lynch asked about the sizing of the system. Engineer Tilman commented that either aeration system has to be sized for the lake area that would need to be treated. She also reiterated her comment about the need to better understand the watershed component of the loading to the lake since if it is too high then you will simply be cycling the nutrients coming into the lake and moving them down to Bone Lake just in a different fashion.

Regarding the question that was asked about which treatment option is more reliable, Engineer Tillman responded by showing a slide that notes that with alum published studies show the effectiveness of alum corresponds to the dosing rates, and that low dosing rates in the past have led to short term results. With aeration, anecdotal evidence shows aeration can also be effective, but isn't effective in all cases, and sediment phosphorus storage capacity & adequate oxygen are the main determinants of effectiveness and are not as well understood as other mechanisms.

EOR's recommendations at this time are:

- Conduct additional monitoring of inflows to determine the amount of watershed phosphorous loading as compared to what the WENK Study identified since at present we do not have any actual monitoring data.
- Regarding phosphorous cycling Engineer Tilman provide information on the cost of the two options and although aeration costs less they are still recommending an alum treatment option due to the higher reliability that they believe exists with alum compared to aeration. Manager Anderson asked if there is enough work to give a number of which systems have been used and if they have worked. Manager Lynch asked how often it is necessary to add iron. He also asked if you end up needing a bigger pump then you are also going to have higher cost. Manager Spence commented on the importance of the watershed loading part of the picture. Manager Moe commented that he thought that maybe the aeration system might be a better option. Administrator Thomas interjected that although he was jumping ahead it is important to point out that the first recommendation is for monitoring to be done to be able to fully understand and evaluate the watershed load compared to the modeled results and that this first step is being recommended before we make a final decision on the in-lake treatment option.
- Regarding fisheries EOR is recommending a fish survey in 2012, stocking of predator fish depending on the results of the survey, and winter aeration to maintain a better fish structure in the lake. Manager Spence asked about fishing on the lake and Manager Moe noted that there is some ice fishing that is done.

Administrator Thomas commented that at this point in time he is proposing that he will be bringing work/task orders back for the December and January meetings for conducting the non-CIP items in the report including the watershed load monitoring and fish survey. He commented that he will also begin discussions with Chisago Lake Township about access and possible cooperation on a fishing pier which would allow DNR to have more involvement in fisheries management, given there is not public access at this time. He further commented that this course of action will allow for us to put off the decision on the choice of an in-lake treatment option but that he will also query other watershed districts to gain information on their experiences with in-lake treatments both alum and aeration.

d) Sunrise River Petition Project Update

Jason Naber from EOR who is the Project Manager for the Sunrise River Petition Project gave an update on activities to date and a summary of what's next. Mr. Naber went through a PowerPoint presentation that covered:

- Review of project goals
- Items that the Feasibility Analysis was to cover
- Review and update of the retrofit identification and analysis portion of the project
- Historical context relating to the Sunrise River within the District
- Reviewed the completed Lower Reach Geomorphic Assessment
- Surveying tasks completed to date
- Completion of existing ditch profile sheets
- Hydrology and Hydraulic model updating
- Wetland delineation, vegetation mapping, and wetland soil investigations activities completed
- Fisheries memo
- Discussed the continued areas of feasibility analysis and design that EOR is working on
- Description of what will be included in the final Engineers Report
- Project budget update

Manager Anderson commented on the number of farms nearby in the lower reach of the Sunrise that have never been studied and also asked if we have surveyed all of the ditch laterals and commented on all of the information gathered in the past including a HDR photographic record that was done by the former WMO. There was further discussion regarding wetland soils and the hydrology report and evidence from them that suggest that there is a good opportunity to use the existing wetlands, with modifications, for additional water storage and treatment. Manager Anderson asked about partnering with the University of Minnesota, which may have an interest in the wetland uses as part of the research that they do.

7. Report of Staff

- a) Administrator Thomas noted his written report in the Board packet. He also mentioned a request by the Freshwater Foundation for him to participate on a planning team for a one day session on Targeted Conservation. He also noted that through the District's participation in EMWRP there will be two workshops held in the CLFLWD in 2012.
- b) Emmons and Olivier Resources (EOR) – Engineer Tilman gave a quick update on the status of the various reports they are currently working on including finalizing the WMP, 3rd Lake Water Quality investigation, Bone Lake Fish Barriers, and Hwy 61 Water Quality Enhancement Study.
- c) Smith Partners – Nothing new to report

8. Report of Treasurer

a) Approval of Bills

Manager Lynch presented the Treasurer's Report (A copy of which is annexed and incorporated by reference) and bills and payroll totaling \$75,264.46.

Motion was made by Manager Anderson to approve the November 17, 2011 Treasurer's Report and pay the bills and payroll as presented. Manager Moe seconded the motion. Upon vote, the motion passed.

9. Reports of Officers and Manager

Manager Damchik – Asked Administrator Thomas if he had followed up with Gaughn Companies on the river channel by the North Shore Apartments.

Manager Lynch – Nothing to report

Manager Spence – Nothing to report.

Manager Anderson – Commented on her observation on a thin layer of algae on Comfort Lake this fall and it is something that she has not observed in the past.

Manager Moe – Nothing to report

10. Adjournment

Motion to adjourn the CLFLWD regular Board meeting at 7:45 pm was made by Manager Spence and seconded by Manager Anderson. Upon vote, the motion passed.

Wayne S. Moe, Secretary