

**MINUTES OF THE SPECIAL MEETING  
OF THE  
BOARD OF MANAGERS  
OF THE  
NINE MILE CREEK WATERSHED DISTRICT**

**THURSDAY, JANUARY 9, 2020**

**Call to Order**

Chair Peterson called the meeting of the Board of Managers of the Nine Mile Creek Watershed District to order at 5:30 p.m., Thursday January 9, 2020, at the Nine Mile Creek Watershed District Office, 12800 Gerard Drive, Eden Prairie, MN 55346.

Managers Present: Bob Cutshall, Larry Olson, Grace Sheely and Jodi Peterson

Managers Absent: Erin Hunker

Advisors Present: Randy Anhorn, Janna Kieffer, Gael Zembal and Erica Sniegowski

Administrator Anhorn mentioned that staff would be hosting a community stakeholder meeting from noon to 1:00 at the Cigna office building in Eden Prairie to present the findings of the Smetana Lake UAA update. He said that the same presentation will be given to the Board at their February 6, 2020 workshop.

Administrator Anhorn also mentioned that staff would be hosting a Technical Advisory Committee meeting on Friday, January 17 to discuss current high water levels and the potential for localized spring melt flooding and to define roles and collaboration.

**Urban Stormwater BMP Effectiveness**

Administrator Anhorn mentioned that during the presentation on stormwater BMP options and costs in the Lake Cornelia watershed, the managers asked for additional information on different urban BMP options, costs and effectiveness. He said that Engineer Kieffer would be giving a presentation on that topic.

Engineer Kieffer discussed factors that influence costs of stormwater BMPs, which included the type and size of BMPs, site constraints, and land costs. She then went through typical costs, not including land costs due to variability, on a cubic foot basis for numerous different above and below ground BMPs. She said that overall, when looking at cost effectiveness of a BMP, we consider the annualized life cycle cost of the BMP (over 20 or 30 years) in comparison with its annualized life cycle benefit, often in terms of pounds of pollutant removal.

Manager Cutshall asked how the phosphorus is actually removed, is it a matter of taking the sediments out that contain the phosphorus or is the phosphorus actually in the water.

Engineer Kieffer said that one way is through sedimentation, where the sediments that carry phosphorus settle out. Other mechanisms to remove phosphorus include infiltration where the water filters down through the soil, and through chemical reactions like the proposed spent-lime BMP for Lake Cornelia.

Engineer Kieffer said that there really is no “typical” cost/benefit for urban BMPs due to the many influencing factors such as size of the BMP, the design, soil type, land costs and the amount of water treated. She said a planning-level average cost/benefit of \$5,000 - \$10,000 per pound of phosphorus removed can be used for urban BMPs.

Program and Project Coordinator Sniegowski mentioned that smaller projects tend to cost more per pound of phosphorus removal due to higher mobilization costs and because they often receive and treat less stormwater runoff volume.

Chair Peterson asked if costs go down if you cluster BMPs as opposed to just doing one, due to maybe lowering mobilization costs. She said that if that is the case, maybe that is something we should be thinking about.

Engineer Kieffer agreed.

Engineer Kieffer continued with her presentation and said that in using data from approximately 300 projects from the Ramsey Washington Metro Watershed District (RWMWD), most stormwater BMP project costs fell within the wide range of \$1,400 to \$25,000 per pound of phosphorus removed. Because of the potential for high costs, she said it is best to try to optimize cost effectiveness by seeking partners, strategically sizing the BMP (in consideration of diminishing returns) and if possible, choosing lower cost BMPs like ponds or raingardens.

Administrator Anhorn stated that in the case of diminishing returns for sizing BMPs to handle a 1.1-inch rain event, per the District’s stormwater rule, as opposed to constructing to handle 2.2 inches, the footprint of the BMP would need to double in size. He said that because of the infrequency of the larger rain events, the overall increase of volume treated would be small while the cost of the BMP would likely double.

Chair Peterson asked if RWMWD, with their range of data, have looked at optimization and evaluated what worked the best and why. She said that if they had, that would be great information to learn from.

Engineer Kieffer agreed and said that she would look into that.

Manager Sheely wondered if some of the more expensive BMP projects end up being on higher value parcels.

Engineer Kieffer said that that is likely the case, which is why it is beneficial to optimize through partnerships. She referenced working with the City of Edina to construct a BMP in Rosland Park for Lake Cornelia and eliminate the land costs as an example.

Engineer Kieffer then discussed the potential co-benefits of urban BMPs which included demonstration and education, flood risk reduction, partnerships, increasing pollinator habitat, and incorporating public art.

Manager Cutshall said that although it made sense to size BMPs in consideration of diminishing returns by rainfall event volume, if BMPs were larger, they would provide more flood storage.

Engineer Kieffer said that yes, there would be more flood storage, which would be a co-benefit.

Chair Peterson wondered if it would be worthwhile to look at the different co-benefits of BMPs and assign priorities based on criteria such as how important it is to overall watershed quality or watershed goals.

Engineer Kieffer said that would be a good idea, but they would be difficult to quantify.

Program and Project Manager Sniegowski said that it would be useful to have a list of what co-benefits are important to the watershed.

Engineer Kieffer highlighted the cost per pound effectiveness of the proposed spent lime stormwater BMP for Lake Cornelia which would be constructed on the City of Edina property at Rosland Park. She said the project cost for that BMP was roughly \$1,500 per pound of phosphorus removed. She then compared it to what costs would be to install stormwater BMPs on private property in the area. She said it was quite a bit more, and that is what the developers are paying. She said that the Rosland Park BMP looks like a good value.

Manager Cutshall asked if that was an annual cost.

Engineer Kieffer said it was a life cycle cost.

Manager Peterson asked if it would be worthwhile to share this information with private developers to promote finding different ways to do things like build or partner in the construction of more regional systems.

Engineer Kieffer that was an interesting idea.

Manager Peterson asked if co-benefits are factored into the lifetime cost effectiveness.

Engineer Kieffer said that they were not.

Program and Project Manager Sniegowski said that for smaller projects like the District's non-profit BMP projects, while they are on the higher end of the cost-benefit range, the co-benefits such as education components and incorporating pollinator plant species can balance things out.

Manager Cutshall asked if the main way we look at cost effectiveness of BMPs was phosphorus removal. He said he thought that flood control should be as important. He said that to him, flood control is number one and phosphorus control is a co-benefit.

Engineer Kieffer said that most of the stormwater BMPs present today were primarily for water quality, so they are designed for phosphorus removal and the smaller amount of flood control was a co-benefit.

Administrator Anhorn said that while costly in an urban environment where large parcels are at a premium, finding areas for flood control projects is difficult. He said that if available, it is easy and cost efficient to include water quality benefits in a flood control project, however, that is not as often the case for including flood control in a water quality project..

Program and Project Manager Sniegowski said that the push to construct these stormwater BMPs such as raingardens came out of the need for receiving water resources to meet state water quality stands and TMDLs. She said that to this point these projects have all been driven by water quality.

Manager Cutshall said that it would be worthwhile to find the most economical way to optimize and get more flood storage. He acknowledged it is difficult to go out and create new storage in a built-out urban area. He said that maybe it could be accomplished through either working with a developer that has a development within the District or through enhancing existing systems for flood control as opposed to creating new ones.

Manager Sheely said that with climate change, while we are in this super wet period she hears from climate experts that there will likely be a shift to a more drought-like period, or longer periods without rain. She said we may want to design things so that they can meet stormwater reuse needs in the future. So instead of being in a flood management period we are in now, we may well have water constraints in the future.

Engineer Kieffer said that those questions and concerns can be considered and addressed through climate resiliency planning. She said we hear from the MDNR about current and anticipated changes in precipitation patterns and temperatures. What those changes mean for a given watershed will depend on many factors. She said through planning, the District could look at what waterbodies would be impacted the earliest and the most under wet or drought conditions.

Administrator Anhorn mentioned that climate resiliency could be one of the goal/policy topics that are the focus of subsequent workshops following the upcoming Board retreat.

Manager Sheely said she wondered if maybe when we designed the outlet at Normandale Lake for the drawdown project, if we should have considered design modifications for times when there is not much flow.

Engineer Kiefer said that there are outlet designs to be considered that can hold more water back during small events and release more water during larger events. She gave an example about the proposed Rosland Park stormwater BMP where the ponds upstream of the BMP will be used to store water and then discharge through the BMP under certain conditions.

The Board thanked Engineer Kieffer for the interesting education presentation.

### **Aquatic Invasive Species (AIS) Management Strategy**

Administrator Anhorn mentioned that previous Board discussions on the development of an AIS management strategy resulted in the managers' deciding to not "reinvent the wheel" and use the Bassett Creek Water Management Commission (BCWMC) Aquatic Plant Management (APM)/AIS Committee process of developing an AIS management strategy. He said that this involved determining levels of involvement (lead, partner, no role) of various management objectives, determining which lakes/creeks would be considered for the various activities and then going through BCWMC's list of 16 management activities and developing our own list that we would then bring to the District's own AIS/TAC Committee.

Administrator Anhorn stated that he sent out a list of AIS management project objectives and asked each manager to give their thoughts on the District's role for each. He said that he had received the suggested levels of involvement for each AIS management activity from each of the managers. He stated that there was an overwhelming consensus on three of the six objectives (activities that improve water quality, activities that protect the function or capacity of the District's 100-year flood zone, and activities that improve aesthetics). He then presented the other three AIS management project objectives and highlighted if and/or where a District policy or objective in its Water Management Plan may line up with that AIS management project objective. He said the three AIS management project objectives were, activities that improve habitat and overall ecology of a waterbody, that solely improve recreation, and that improve or protect human health and safety.

Manager Peterson said that she was a little confused by the human health and safety objective. She said that while human health and safety is obviously important, she is not sure what our role would be, that it seemed more of a Minnesota Department of Health (MDH) issue.

Manager Olson asked who some of our potential partners would be.

Administrator Anhorn said partners could include cities, the MDNR, Three Rivers Park District if the activity was on Bryant Lake, or even a lake group or the Isaac Walton League on Bush Lake.

Manager Sheely said that she keeps going back to the fact that our main objective as a watershed district is water quality and flood control, so to her the other objectives would either fall into a partner or no role category.

Manager Cutshall stated that the District can not focus on everything, so we have to figure out what is important for this organization and build our plan around those and then if we

have extra time and money to help out in the other areas, wonderful. He said that we have to hit our top priorities first. Following discussion, the consensus of the Board was that its role, in AIS management activities that improve habitat and the overall ecology of a waterbody, was as a partner.

Administrator Anhorn went through examples of what an activity to improve the recreational viability of a lake would be, such as harvesting Eurasian watermilfoil on Lake Minnetonka.

Manager Olson stated that there is overlap in many of these activities. Following discussion, it was the consensus of the Board that the District should not have a role in AIS management activities in which the primary purpose is meant to improve the recreational viability of a waterbody.

Chair Peterson again mentioned that she would think that if something truly becomes a health issue, it would be handled by another entity like MDH.

Administrator Anhorn mentioned that there is not a goal, policy or objective that addresses health and human safety directly.

Manager Sheely said she does not know where or when we would be involved. She wasn't aware of any direct issues other than large mats of vegetation that could impact swimming or sharp zebra mussels. She further said that if we were going to be in the middle ground, what would that look like and would we need to revise our policies to address this.

Engineer Kieffer said that while we have nothing at our doorstep now, we do not know what aquatic invasive species may be coming that could have a health concern.

Following discussion, it was the consensus of the Board that at this time, because they could not identify a direct health and human safety issue in front us, would be to simply not define our role in that activity until if and/or when one comes before us.

Administrator Anhorn presented the results of the levels of involvement the managers thought the District should have in various AIS management activities.

Primary Objective of Project	District should be involved or lead	District should be involved only as a partner	District should not be involved
Activities that improve water quality	X		
Activities that improve habitat and the overall ecology of the waterbody		X	
Activities that protect the function or capacity of the District's 100-year flood zone	X		
Activities that the primary purpose is to improve recreation			X
Activities that improve aesthetics			X


Administrator Anhorn highlighted the next steps the Board would be undertaking to define the District's AIS Management Strategy, including:

- Determination on which lakes/creeks would be involved in the various activities.
- Going through BCMWMC's list of 16 activities and developing our own list that we would then bring to the District's own AIS/TAC Committee.

**Adjournment**

**It was moved by Manager Sheely, seconded by Manager Cutshall, to adjourn the meeting at 7:35 p.m. p.m. Upon a vote, the motion carried.**

Respectfully submitted,




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Erin Hunker, Secretary

