

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

**WEDNESDAY, SEPTEMBER 4, 2019**

**Call to Order**

Chair Peterson called the meeting of the Board of Managers of the Nine Mile Creek Watershed District to order at 6:00 p.m., Wednesday, September 4, 2019, at the Nine Mile Creek Watershed District Office, 12800 Gerard Drive, Eden Prairie, MN 55346.

Managers Present: Bob Cutshall, Erin Hunker, Steve Kloiber, Grace Sheely and Jodi Peterson

Managers Absent: None.

Advisors Present: Randy Anhorn, Janna Kieffer, Evan Christianson, Gael Zembal, and Lauren Foley

**2020 Budget Public Hearing**

Chair Peterson opened the public hearing for the 2020 budget. She introduced herself and noted that all Managers were in attendance. She stated that each year the District is required to hold a public hearing related to the proposed budget and levy.

Administrator Anhorn stated that the District published the public notice in the District newspaper for two weeks prior to tonight's meeting. He stated that no changes were made to the proposed budget since the last review of the Managers on August 21<sup>st</sup>. He stated that the proposed levy is \$2,720,000, which represents less than a one percent increase from 2019. He stated that due to the market value changes the impact to taxpayers would be less than the amount levied in 2019. He stated that the proposed budget is \$4,709,000 and explained that the difference between the budget and levy would be made up with the use of existing reserve funds.

Chair Peterson noted that no members of the public hearing are present and therefore closed the public hearing.

Manager Kloiber noted that the Managers have reviewed the proposed budget and levy on multiple occasions and had no additional comments.

Administrator Anhorn noted that this is the preliminary budget and levy and advised that there will be another opportunity for public comment in November prior to final adoption.

**Manager Sheely moved, seconded by Manager Kloiber, to adopt resolution #19-04 to adopt the 2020 budget as distributed. The Administrator conducted a roll call vote:**

	<u><b>Yay</b></u>	<u><b>Nay</b></u>
<b>CUTSHALL</b>	<b>X</b>	
<b>HUNKER</b>	<b>X</b>	
<b>KLOIBER</b>	<b>X</b>	
<b>PETERSON</b>	<b>X</b>	
<b>SHEELY</b>	<b>X</b>	

**The motion carried.**

**Manager Hunker moved, seconded by Manager Sheely, to adopt resolution #19-05 to adopt the 2020 Metropolitan Surface Water Management Act Levy. The Administrator conducted a roll call vote:**

	<u><b>Yay</b></u>	<u><b>Nay</b></u>
<b>CUTSHALL</b>	<b>X</b>	
<b>HUNKER</b>	<b>X</b>	
<b>KLOIBER</b>	<b>X</b>	
<b>PETERSON</b>	<b>X</b>	
<b>SHEELY</b>	<b>X</b>	

**The motion carried.**

**It was moved by Manager Kloiber, seconded by Manager Cutshall. to adjourn the public hearing at 6:06 p.m. Upon a vote, the motion carried.**

### **Call to Order**

Chair Peterson called the meeting of the Board of Managers of the Nine Mile Creek Watershed District to order at 6:15 p.m., Wednesday, September 4, 2019, at the Nine Mile Creek Watershed District Office, 12800 Gerard Drive, Eden Prairie, MN 55346.

Managers Present: Bob Cutshall, Erin Hunker, Steve Kloiber, Grace Sheely and Jodi Peterson

Managers Absent: None.

Advisors Present: Randy Anhorn, Janna Kieffer, Evan Christianson, Gael Zembal, and Lauren Foley

## **Groundwater and Surface Water Interaction Study**

Administrator Anhorn provided an overview about the need for the study, highlighting how the Board identified the importance of determining the interaction between groundwater and surface water throughout the District as part of the recent Water resource Plan update process and the Board directing staff to undertake the study

Engineer Kieffer identified the project objectives and how the analysis fits into the work the District does in many ways including where others look to the District as a knowledge source for such regional information. She further stated that this information has already been shared in part to the District's partner cities, providing some clarification on how this effects the current high-water conditions.

Engineer Kieffer, introduced Evan Christianson, a Senior Hydrogeologist at Barr. She stated that Evan would be giving the presentation on the study and results as well as possible next steps.

Evan Christianson, provided some initial background information on the basics of groundwater surface water interactions including discussing the differences between, perched, discharge/gaining, recharge/losing and flow through systems.

Manager Cutshall asked about the term spring-fed lakes and what that meant and if spring-fed lakes had better water quality.

Evan Christianson talked about spring-fed lakes, how the term relates to the different types previously discussed and how in general, groundwater has lower nutrient concentrations as compared to stormwater runoff.

Evan Christianson explained the methodology of the analysis including the use of well data from both state wide sources and data collected by the District, a regional groundwater model done for the Metropolitan Council, stage monitoring from the District and DNR, Lidar information, surface water bathymetrics, and wetland classification.

Evan Christianson stated that there are some neighborhoods that have wells that were used prior to connecting to City water services. He stated that there are historic water levels from District wells along with current levels. He provided data on surface water elevations and depths. He stated that information is used to determine the groundwater connection. He highlighted the regional water table data, noting that regionally groundwater flows from the north to the south. He explained how they determine if there is a connection between groundwater and surface water and identified areas where there is connection and highlights which of the District's water resources were identified as perched, recharge/losing, flow through or discharge/gaining.

Evan Christianson moved on to the topic of surface water vulnerability, which is a geologically driven exercise. He explained that this identifies areas where surface water would be vulnerable to groundwater pumping, among other changes including drought or wet periods.

He provided a map of the County geology and identified areas of different permeability and vulnerability. He reviewed different geologic cross sections of the region and provided information on the bedrock aquifers. He stated that in vulnerable areas the surface water would be more sensitive to the groundwater changes.

Manager Kloiber used the example of White Bear Lake, which is a large lake with a relatively small catchment and is relatively well connected to the groundwater system and asked for places that may act similarly. He also used the example of Normandale Lake which is vulnerable or sensitive but a majority of the watershed flows through and therefore can fill back up in a hurry.

Manager Cutshall asked if groundwater going into a discharge lake could be a source of phosphorus.

Evan Christianson confirmed that to be true but noted that it would typically be a low-ranking source.

Manager Kloiber commented that historically groundwater has much lower levels of phosphorus compared to stormwater.

Evan Christianson highlighted areas where there is interaction between groundwater and surface water and explained how the knowledge can be used:

- Guide better understanding of water budgets
- Help screen if groundwater may or may not be important when evaluating lakes
- Understanding which water bodies may be affected by climatic changes
- Guide the process to evaluate and potentially comment on water appropriations permits
- Modeling
- Understanding how infiltration may or may not be useful
- Regional land use planning
- Targets areas for additional data collection

Engineer Kieffer stated that the District has a lot of water bodies connected to groundwater and asked if that is typical.

Evan Christianson provided information on a study that he did for another watershed district and the different groundwater surface water interaction that exist in that area. He stated that in comparison there is a higher percentage of water bodies in the District that have the groundwater/surface water connection and are likely more vulnerable.

Manager Kloiber asked the location of the appropriations/wells located in and adjacent to the District, how much are they appropriating current, and if there are obvious trends.

Evan Christianson stated that many of the cities in the area that have been fully developed are seeing a decrease in water use associated with conservation and high efficiency appliances.

Manager Kloiber stated that he has noticed some distinctive wetlands that would seem to have a stable water table because of the established plant community. He noted that typically that would be associated with a groundwater connection but stated that he noticed that those wetlands are listed as perched.

Evan Christianson confirmed that those were specifically reviewed, and most were perched.

Manager Cutshall asked if any of this information would cause the District to reassess any of the rules that have been made.

Manager Sheely asked how this would interact with the issues that have existed in Edina related to height and low floor elevation.

Engineer Kieffer replied that most of the flooding issues evaluated by the municipalities or the District are related to surface water flooding, which can be confusing for residents when there are groundwater flooding issues occurring.

Evan Christianson stated that the data may be beneficial for consideration of dewatering that may be needed for construction of underground parking structures.

Engineer Kieffer stated that when the District previously reviewed an infiltration pumping project, one of the reasons the District moved away from that activity was potential impacts to a nearby underground parking structure.

Manager Cutshall asked what would be done with this information and how it would impact the District's permitting program.

Engineer Kieffer stated that there could be different requirements for different subwatersheds based on the vulnerability of the water resources.

Manager Hunker asked if there are Drinking Water Supply Management Areas (DWSMA) within the District.

Evan Christianson confirmed that there are DWSMAs within the District. He stated that cities develop those areas to protect the drinking water supplies from contamination and explained which areas within the DWSMA could be used for infiltration and which areas would not allow infiltration.

Manager Kloiber stated that his interest in this topic was partly just for additional information, noting that other areas have had instances of surface water levels being impacted by groundwater levels, using the example of White Bear Lake. He stated that this information identifies potential risks so that the District would not be blindsided. He noted that historical lake level monitoring data could be used to evaluate water levels during times of drought which also identifies areas that could be impacted in the future.

Engineer Kieffer stated that this study comes at an interesting time, noting that in 2015 Lake Edina was basically a mud pit and it was determined that the lake was pretty connected to the groundwater while now they are on the other end of the spectrum. She stated that this information can help determine how groundwater pumping could influence surface water levels.

Manager Kloiber recognized that this data can be used to determine the risk of too little groundwater or on the reverse, the risk of high groundwater and how the District would be involved.

Administrator Anhorn stated that the information can be used similarly to how other watershed districts have been handling the issue of wet basements, to inform and educate residents.

Manager Kloiber stated that it would be worth pursuing more information related to climate change, specific to both surface water and groundwater in order to provide a full picture of water.

Manager Sheely asked if there are opportunities to store water via infiltration to groundwater.

Evan Christianson confirmed that there could be areas where water could be stored within groundwater. He also noted that there are areas where additional groundwater could make people's basements wet or impact other infrastructure.

Engineer Kieffer confirmed that some of the information used for this study was also used for the 2018 infiltration opportunity study, as well. She noted the information from this study will be used in the upcoming wetland restoration opportunity study. She stated that the District has been monitoring groundwater levels going back to the 1970's. She explained that as development occurred some of those wells have been abandoned, reducing the number being monitored to seven.

Evan Christianson stated that while it is nice to increase spatial coverage it is also important to focus on areas with more vulnerable lakes and wetlands. He noted that most of the wells are single wells on their own being monitored, additional data can be collected using nested piezometers. He noted that the best opportunity for nested piezometers is to partner with a municipality.

Manager Sheely asked if private wells could be changed to be monitored.

Evan Christianson confirmed that could be done but advised that there would be issues with access, liability, and MN Department of Health regulations.

Manager Sheely noted that some people will just be closing their private wells that are not being used and therefore that could be an opportunity for monitoring in a nested situation.

Manager Kloiber stated that perhaps the District should consider refurbishing of the monitoring program.

Manager Cutshall stated that the District has a blanket rule for infiltration but in areas of less permeable soils a different rule applies. He asked if there could be a rule where areas of more permeable soils with a deeper water table, require a higher rate of infiltration.

Administrator Anhorn stated that could be done but noted that it then becomes an issue of fairness for applicants.

Manager Kloiber stated that in past instances the District has offered to partner in order to expand a recharge facility, partially funded by the District.

Manager Cutshall stated that the requirement for the entire District could be raised and then the levels required reduced based on the soil type. He stated that in the scope of larger projects, the cost to expand infiltration basins is low.

Engineer Kieffer provided additional information on rate control, infiltration, and cost benefit.

Manager Kloiber identified public land with sandy soils that could provide opportunity.

Chair Peterson asked what would be done with this information.

Manager Kloiber stated that it appears that further study is needed, and it would be helpful to have additional monitoring wells, long-term lake levels, and water demand from water suppliers.

Engineer Kieffer provided examples where it would be helpful for the District to share this information.

### **Adjournment**

**It was moved by Manager Sheely, seconded by Manager Hunker, to adjourn the meeting at 8:00 p.m. Upon a vote, the motion carried.**

Respectfully submitted,

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Erin Hunker, Secretary