**MINUTES OF THE TECHNICAL ADVISORY COMMITTEE MEETING NINE MILE CREEK WATERSHED DISTRICT**

**TUESDAY, APRIL 23, 2019**

Attendees: Patrick Martin, Richfield; Sarah Schweiger, Minnetonka; Leslie Stovring & Patrick Sejkora, Eden Prairie; Bryan Gruidl, Bloomington; Jessica Wilson & Ross Bintner, Edina; Nate Stanley & Eric Klingbeil, City of Hopkins; Emily Resseger, Metropolitan Council; Brian Vlach, Three Rivers Park District, Drew McGovern, Hennepin County.

Staff: Randy Anhorn, Lauren Foley, Bob Cutshall, Janna Kieffer,

The meeting was called to order at 9:00 a.m.

## 1) Present Findings From a Districtwide Stormwater Volume Reduction Opportunity Analysis

Randy Anhorn welcomed the members of the committee and provided background information on the topics on the meeting agenda and said that Janna was going to present the findings of the District's screening-level GIS, analysis to identify potential sites for infiltration-based volume reduction best management practices (BMPs) within the watershed. He said that the suitability of sites within the watershed for infiltration-based BMPs were assessed primarily based on soil characteristics, but also included consideration of groundwater levels, topography, land use, and partnership opportunities (mainly public and nonprofit owned parcels). He said he would like everyone to think about partner opportunities to implement stormwater volume reduction BMPs, or assist in going beyond compliance where applicable, when they are in the long-term planning process and working with other departments in their organizations on identifying public projects.

Janna Kieffer provided an overview of the stormwater volume reduction opportunity analysis and explained the methodology which was used to identify the areas with the best soils and reviewed the different soil categories. She stated that the next step reviewed the soils under the surface layer and explained the process that was followed. She stated that an approximation was then done for the watershed to show the different soil categories, noting that the District should focus on the A and B areas as that will maximize infiltration opportunities. She explained that there are some areas that have A soils on the surface as well as in the deeper layers while other A areas may have different soils in the under layers and advised that the areas are color coded. She noted that all of the information is an estimation and further investigation would be needed for any of the locations before investing additional time and energy in those areas. She stated that this is a data set for the entire District that can be used by staff. She stated that this information was then used to determine sites that could be targeted. She explained that A and B soils were then overlaid onto parcels to determine possible opportunities. She provided additional details on the rating system that was developed for public parcels, which further identifies potential opportunities.

Ms. Kieffer went through the handouts showing the displayed the top public parcel opportunities throughout the watershed as well as providing the information on an more detailed format on a city by city basis.

Administrator Anhorn stated that although today's presentation focuses on public parcels, the analysis information for non-profit and private parcels has been used for locating projects on residential and non-profit parcels, providing an example of a lake association project that will be construction multiple raingardens on private parcels.

Emily Resseger asked if there is a good sense of the water table information.

Ms. Kieffer stated that the District does have some data and is doing a study on the groundwater and surface water interaction and will have a better idea following that study.

Mr. Anhorn explained that the District will continue to work with individual property owners. He explained that the intent in this process is to identify potential sites so that communication is open about opportunities for when projects from the municipalities or entities arise. He noted that some road projects do not require permits from the District, but the District would still like an opportunity to discuss potential improvements that could be done with the project.

Ms. Kieffer noted that the sites were not deeply researched and therefore if the municipalities have input on the site conditions, that could be helpful.

Ross Bintner asked if there are data sets behind the soil maps that would be available to the group. He stated that it could be helpful to share with builders.

Mr. Anhorn asked for any other contact information from staff members at the cities that may find the information helpful.

Mr. Bintner asked if the methodology for describing the soils is based on economics or custom created.

Ms. Kieffer replied that it was custom created.

Mr. Bintner stated that it could be helpful to have the information to use for the other watershed that the municipality belongs to for comparison purposes. He stated that if the methodology is known that will provide additional information.

Mr. Bintner further stated that it appears the titles and parcel locations on a few of the Edina sheets were scrambled and could use some editing.

Ms. Kieffer confirmed that staff would fix those errors.

Mr. Anhorn stated that there have been discussions on the fire station. He welcomed any additional comments the group may have by email.

## 2) Discuss Atlas 14 and District Roles in Local and Regional Flooding Issues

Mr. Anhorn provided an overview of the District's past roles in flood management throughout the watershed. He said that the District had historically taken a leadership role in regional flood management from the construction of several large flood improvement projects in the 1970s and 80s, to development and upkeep of a detailed, watershed-wide model that incorporated Atlas 14 precipitation estimates in 201. He said that following a recent floodplain discussion at a District Board meeting, the Managers are considering their desired future role in helping address local and regional flood issues and would like to get feedback from the TAC regarding technical needs and partnership opportunities.

Ms. Kieffer went through a PowerPoint presentation that a provided a brief history of the District beginning in 1961 related to flood management and protection and the creation of District-wide modeling, which was created using Technical Paper 40 (TP 40) rainfall amounts. She stated that the Atlas 14 results were then released and during the comparison there were some instances where the results from Atlas 14 were higher than the original District flood management elevations and or TP 40 modeling results in some areas and lower in other areas, noting that the higher results were used for updating flood management elevations, whether those flood elevations were from the original District modeling or Atlas 14. She noted that many municipalities have also adopted or plan to adopt the Atlas 14 rainfall amounts and are attempting to tackle some of the issue of potential flooding. She reviewed some of the options available to resolve the potential flooding issues. She asked the TAC members to provide their thoughts on the role the District should play in assisting local municipalities to address potential flooding issues. She stated that the District will continue to implement the floodplain rule but asked whether the District would like to assist in a prevention/planning capacity. She provided an example in Edina where there are flooding issues that have been identified in analyzing the application of Atlas 14 rainfall amounts to the city. She described a city project recently brought to the engineers' attention that involved increasing the size of a stormwater conveyance to reduce upstream local flooding risk by conveying more flow to a downstream pond. The project did not trigger the District flood-protection requirements because it did not involve work in the floodplain. She asked the committee members if they thought there was a role for the District in working with cities to determine where there is additional capacity to manage such increased large-event flows.

Mr. Bintner stated that they are working on a budget reduction strategy in Minnehaha Creek and invited the District to join that process, which may provide additional information on value and prioritization. He stated that if the District could provide assistance on the value question, as well as levels of achievement. He noted that moving the needle very slightly may have a large impact on a homeowner that is flooding out once every nine or ten years, compared to someone that may flood out once every 100 years. He provided input on land use. He recognized that development can add to additional risk. He stated that future-proofing rules right now as climate change continues will be important.

Mr. Anhorn asked who is involved in the Minnehaha Creek group.

Mr. Bintner provided details, noting that the group is still being put together but advised that he would like someone from the District to participate. He confirmed that there would be a separate citizen group.

Drew McGovern stated that Hennepin County has a Technical Committee that was formed last year to review the technical resiliency. He explained that they are considering a midcentury event, which is closer to nine inches. He acknowledged that there would be a financial impact to take that leap, but also agreed that it would be helpful to build in excess for future climate changes. He stated that Minnehaha Creek is 25 percent of Hennepin County and Minnetonka fell within that group. He reviewed the other members that participate in the Committee.

Jessica Wilson asked if landlocked basins have been reviewed, or if there is interest in looking at those areas, as there have been higher water levels.

Mr. Anhorn stated that there was not discussion specifically on landlocked basins. He stated that watershed-wide there are higher water levels.

Ms. Kieffer provided details on the spring melt modeling that was done by the District. She agreed that it would make sense to look at landlocked lakes for modeling purposes.

Ms. Wilson stated that planning support would also help. She stated that there is a lake association that would like a pump installed and would pay to have that pumped out. She noted that the additional modeling information would be helpful to ensure the group does not move forward on their own.

Mr. Anhorn stated that they are asking communities for their updated Atlas 14 information to update the models.

Ms. Resseger asked if the District is part of the DNR process to update the FEMA maps. She stated that the DNR is working with some of the Mississippi watersheds to update the FEMA maps.

Ms. Kieffer stated that the District has not yet been approached.

Mr. Anhorn noted that he could follow up to determine if there would be interest from the DNR to work with the District.

Ms. Resseger asked if the District or municipalities have used the models to do more continuous modeling.

Ms. Kieffer stated that the District has not done that type of activity. She noted that the biggest reason is that it is so strenuous.

Ms. Resseger explained that it could identify some additional issues.

Ms. Kieffer stated that most of the District has PA models, which provide another level of detail. She asked for details on the midcentury modeling and how the group feels about that compared to the Atlas 14 figures.

Bryan Gruidl commented that they are struggling with Atlas 14 and noted that there is not much more that could be done other than adding additional storage, which comes at quite a cost. He stated that while there is value in planning for midcentury, perhaps that could be done with prioritization.

Mr. Bintner stated that they developed a matrix with three different areas they may work in. He stated that the question of value and prioritization helps to identify what a homeowner could do to provide themselves protection and value, or what developers and redevelopers could do. He stated that once the value is determined, that cost could be put on climate changes.

Ms. Resseger stated that groundwater is increasing in her area and there is flooding occurring because of that. She stated that long-term water table information will be helpful.

Ms. Kieffer stated that the District has access to certain data but if the cities have more information on localized water data, that could be shared with the District, using the example of well monitoring.

Ms. Resseger stated that there often is not a lot of shallow aquafer monitoring results, which could be helpful.

Mr. Bintner stated that the MPCA may have helpful data as well related to groundwater.

Ms. Wilson stated that she is pleased to hear that the District is remaining active in its role and being proactive. She stated that there is a different feel in Edina comparing Nine Mile Creek and Minnehaha Creek. She found it valuable that the District is being so proactive.

Ms. Kieffer referenced the resilience assessment and asked for input. She provided an example that occurred in an Edina pond this last winter/spring. She stated that the project did not trigger the District rules, but the project still followed the project to determine if there would be downstream impacts. She stated that when someone comes in with a similar project it would be nice to know where there is resiliency so that they know where that type of activity could occur or should not occur.

Patrick Sejkora stated that would be helpful and appreciated that the risk could be reduced for a large number of people if there is resiliency downstream.

Ms. Wilson asked if the District defines what is being protected. She asked if it included trees and outbuildings or just primary structures.

Mr. Anhorn stated that the District has not yet done that but believed a similar concept would be followed in which the primary structure would be protected.

Ms. Wilson stated that it might be helpful to define that.

Ms. Stovring described how the idea of what should be protected can change if not defined. She stated that the increasing water is becoming more consistent and people are losing things. She liked the ideas of setting those definitions.

Ms. Kieffer agreed that in general the goal is to protect primary structures.

Mr. Bintner stated that a lot of times a model is assuming full use of a pipe system, but the inlets cannot keep up with that, which increases flooding on the streets. He stated that they are trying to think about things in a planful manner to reduce that from happening. He provided an example along France Avenue where two properties were absorbing water and provided benefit to properties downstream. He stated that those two properties no longer wanted to accept that risk, which is their right, and therefore there were downstream impacts.

Ms. Kieffer asked for input on easements.

Mr. Bintner stated that perhaps the new suburbs are putting drainage and utility easements around ponds. He explained that when the water level increases, those easements are essentially lost.

Mr. McGovern asked if private properties should be identified that could be more cost-effective to acquire them to provide storage and eliminate risk.

Leslie Stovring asked is cost-share founds could be made available for land acquisition.

Ms. Wilson stated that there have been studies by FEMA that show the cost-benefit of acquisitions. She stated that her city's Council was not interested in acquisition, but staff will keep that discussion moving. She noted that sometimes it can be more cost-effective to acquire properties. She stated that perhaps the District could take a position on the topic and perhaps that would have more weight with City Council members. She noted that the State has funds available for acquisition of property based on cost-benefit analysis.

Ms. Kieffer asked if Minnehaha Creek has an opinion on that topic.

Brian Vlach replied that it has been talked about, but an official opinion or input has not been provided. He referenced homes that have been built too low and stated that perhaps alternatives could be developed to raise the elevation of those homes. He referenced areas that are experiencing changes in land use, from agricultural to residential, that have had impacts on the parks and trails. He stated that the change in drainage has brought about the need for easements and acquisitions.

Ms. Kieffer discussed the unit cost per benefit and noted that there sometimes would be situations where it would be more cost-effective to acquire one property.

Mr. McGovern stated that could disproportionally target certain homes, that could be seen as lower value.

Ms. Kieffer asked how easy it would be to get access to building records for lower elevation properties.

Mr. Bintner replied that is a labor-intensive process.

Ms. Stovring stated that sometimes the building records are not accurate.

Ms. Kieffer asked how far lidar assisted in the process.

Mr. Bintner stated that they compared the GIS and lidar information and used that to compare how close that was to actual elevations. He referenced the prioritization for infiltration and stated that when that is included with parks master planning there could be benefit provided for a project that synchronizes with goals. He provided an example of a project in Chicago that was completed.

Ms. Wilson stated that community capacity building might be a part of the strategy, using the example of giving homeowners the tools to use themselves. She said that some areas of interest would be sump pumps, groundwater, waterproofing around window wells, gutters, landscaping, and grading.

Mr. Bintner stated that he receives a lot of calls from homeowners in the spring looking for flood insurance. He stated that there seems to be a breakdown between insurance agents and homeowners. He noted that flood insurance is confusing enough as it is and simplifying that process would help.

Ms. Resseger stated that FEMA has a lot of great tools, but people look for localized options and resources. She provided examples of general topics that could be helpful for homeowners.

Mr. Sejkora agreed that education can go a long way with residents and residents learning their responsibilities.

Mr. McGovern stated that it would be helpful to show the 500-year flood line in addition to the 100-year flood line, as that includes additional homes that could flood.

Mr. Bintner stated that there are additional methods of flooding above lakes and rivers, using the example of back flooding.

Administrator Anhorn reviewed some of the upcoming topics. He also reviewed the upcoming steps in this process, which includes discussion with the District Board of Managers.

Manager Cutshall commented that there was great discussion at this meeting and agreed that the discussion should go back to the communities to determine how the groups can all work together.

Administrator Anhorn provided an update on the upcoming District anniversary celebration.

**Adjournment**

**The meeting adjourned at 10:55 a.m.**

Respectfully submitted,

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Randy Anhorn, Administrator