Minutes of the

REGULAR MEETING OF THE METROPOLITAN AREA WATER SUPPLY ADVISORY COMMITTEE

Wednesday, March 26, 2014

Committee Members Present:

Steve Schneider (St. Paul Regional Water Services); Jeff Berg (Department of Agriculture); Mark Daleiden (Wright County); Randy Ellingboe (Department of Health); Georg Fischer (Dakota County); Tom Furlong (Chanhassen); Chuck Haas (Hugo); Susan Morris (Isanti County); Jamie Schurbon (Anoka County Conservation District); Lisa Volbrecht (Sherburne County); Terri Yearwood (Department of Natural Resources)

Committee Members Absent:

Sandy Rummel (Metropolitan Council); Katrina Kessler (PCA); Barry Stock (Savage); Michael Robinson (Chisago County)

CALL TO ORDER

A quorum being present, Acting Committee Chair Steve Schneider called the regular meeting of the Council's Metropolitan Area Water Supply Advisory Committee to order at 10:02 a.m. on Wednesday, March 25, 2014.

APPROVAL OF AGENDA AND MINUTES

It was moved by Morris, seconded by Furlong to approve the agenda and the minutes of the October 23, 2013, and January 22, 2014 regular meetings. **Motion carried.**

BURNSVILLE-SAVAGE WATER SUPPLY COLLABORATION

Steve Albrecht and Linda Mullen, City of Burnsville, and Mike Klimers, City of Savage, explained the water supply partnership between the two cities, Kraemer Mining and Minerals, and the State of Minnesota. Concerns over water levels in the Jordan aquifer, and the long term impacts of those levels on the natural environment and water supply, led to a unique public/private partnership. Through the partnership, the cities utilize ground water previously discharged to the Minnesota River as part of the Kraemer quarry operations to meet approximately 33% (1.2 billion gallons) of their combined annual water needs. The cities cooperatively resolved challenges that arose, e.g. water quality issues, including changes in taste and odor. Recent aquifer water level information indicates the Jordan aquifer is recovering in the Savage-Burnsville area, and will be a sustainable water resource for years to come.

Discussed total system capacity during the summer vs. winter. Currently pumping 7-8 mgd in Burnsville, which is a little less that 50% of current winter system usage. The needs in the summer ranges 2.9 to 3, and the average is 4 million. Sometimes in the winter it peaks out. It’s currently in the 50% mix of what Burnsville provides in addition to providing a couple of million gallon/day to Savage.

There was discussion about the geographic location next to an old freeway landfill and whether any unique characteristics have been found in the water. From a public perception standpoint, having a quarry intake near a landfill can be a concern. Albrecht explained that this was part of the initial discussions. The ground water flows toward the river so there is less concern with the landfill because it would have to be an extraordinary circumstance for anything to come back toward the facility. Because so much water is pumped out of the quarry it actually creates a curtain around the intake to protect the

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water area. The cities do additional testing of the water supply that is well beyond EPA and Minnesota Health Department (MDH) requirements. In two years, nothing has been found that would indicate problems.

The question was raised as to whether there is capacity to work with other municipalities. Albrecht responded that with additional treatment and plant expansion, there theoretically is some opportunity potentially long term to provide more water from this facility. At some point Kraemer will mine out the quarry and the area will be lake, at which time some adjustments will need to be made on how the water is treated, and whether shallow wells will be used to take it from the same source of the lake treatment is used.

In response to a question about the relationship between the two cities, Albrecht said that the two city councils see the big picture and have worked very well together. In addition, staff from both cities have a good working relationship.

There was a question about permitting, and whether either municipality gave up its ground water appropriations permit. Albrecht said there is a separate permit for ground water and surface water, and what is pulled from the surface water doesn't take away from what is taken from the ground water. The expansion involved only surface water. The city hasn't opened new wells.

There was discussion about who owns and operates the system and associated infrastructure, especially the treatment plant. Original capital investment was made by Savage, Kraemer, and the State of Minnesota. Burnsville owns and operates the system and is in charge of long-term maintenance. Through a water use agreement, Savage pays a partner rate for water, which recovers Burnsville's long-term capital.

The committee discussed the treatment process of the facility.

WATER SUPPLY PLANNING UNIT TECHNICAL PROJECTS UPDATE

Ali Elhassan, Water Supply Planning Manager, and John Chlebeck, Senior Engineer, provided updates on some of the technical projects that staff have worked on over the last seven months, e.g. the northeast feasibility analysis and the metropolitan region water supply sustainability analysis. In 2013, the state legislature approved $2,537,000 from the Clean Water Legacy Fund to evaluate the reliability and sustainability of the water supply throughout the seven-county metropolitan area, including the northeast metro, where there are some issues with White Bear Lake and water sustainability issues in the northeast. The goal of the regional feasibility of alternative approaches to water supply is to identify and evaluate sub-regional infrastructure needs to achieve water supply sustainability. The approach is to focus on large municipal water system and on potential problem areas, range of issues, and solutions. Staff is working with stakeholder groups.

Two feasibility studies are underway that are similar in scope: 1) Regional Feasibility of Alternative Approaches to Water Supply Sustainability; 2) Feasibility Assessment of Approaches to Water Sustainability in the NE metro.

The first study has a scope to look at the entire metro area from the perspective of individual sub-regional studies. Multiple study areas were selected around the region, and areas are being identified where there are real or projected potential issues with long term sustainability or reliability of water supplies. A lot of the focus of these studies is on diversification of the water sources. One of the key outcomes is to develop an implementation plan so that if any of these approaches were implemented, how would it be done and how long would it take.

Some of the things that need to be looked at include statutory changes, perhaps with water reuse from storm water or wastewater sources. Additional detailed studies that will be needed after the feasibility studies are completed.

Perhaps one of the bigger components is evaluating how such an infrastructure investment would be governed and how the costs would be shared. Study areas that have been identified so far are the northern part of Dakota County, the NE metro (NE metro is actually its own study area with special considerations). There are preliminary study areas discussions are being held with work groups to define the study areas and scope for those sub-regional areas. The boundaries of study areas are focused on municipal water supplies. It's not to say that municipal water supplies are the sole users of the ground water resources – there are major industrial users, private wells outside of the more urbanized central suburbs, and some of those private water users can have a significant impact as well. This is focused more on what the potential solutions might look like and we feel that municipal systems will be a large part of the eventual solution.

Relative to the Northern Dakota study, we're working with HDR. Some of the alternative approaches being looked at for the study area were developed in conjunction with our consultant, the stakeholders, and the work group. All of these communities have been meeting regularly since last year, and have put forth different ideas that they'd like to see evaluated in the study. Looking at surface water sources (Minnesota and Mississippi Rivers); storm water (reuse potential and aquifer recharge); wastewater (reuse potential and aquifer recharge). One of the commonalities in this area is that most of the communities are growing, and they're almost exclusively using the Prairie du Chien aquifer. There is some projected drawdown of the aquifer. The communities in the area realize that they'd like to know how to move forward to continue to grow without running water conflicts. In addition to surface water storm water is also being looked at to evaluate how much those systems cost and how much benefit they'll provide the region as a whole. The Empire WWTP is being looked at as a potential source of treated water for aquifer recharge and also for reuse for large, non-potable customers. Need to analyze feasibility, effectiveness and if there's an optimal way to combine different approaches. Status of this project at this time is HDR has finished collecting data from a lot of these communities and has started putting together distribution system mapping to evaluate where interconnections could be made, and they've started looking at water quality of different sources. Preliminary results will be shared with the work group in mid-April. A second study area, either in the NW metro or in south Washington County, is also being looked at, and as those work groups form, scopes of work are being developed.

The second study is related to the NE metro area, where the goal is to identify and evaluate sub-regional infrastructure needs to achieve water supply sustainability. The difference from the other study is that the focus is on one study area and the analysis is a little more detailed. The problems that they're dealing with in the NE are slightly different, in that the hydrology of the area is different. The aquifer is very productive, but it seems as though the surface water features, e.g. lakes, are sensitive to aquifer decline there. There's a little more urgency with White Bear Lake and some of the other lakes showing long term declines in water level, and there is a lot of public interest in understanding the problem. There is another study that's running parallel with the USGS to better assess some of those lakes in the NE metro and get a better scientific understanding of the relationship between the aquifer and the surface water bodies. We're evaluating the cost of different options, what the major obstacles to implementing alternatives would be, and also determining the regional benefit. One of the things that the communities and stakeholders in the region wanted us to look at in particular was lake augmentation. There's a long history of augmenting White Bear Lake; in the past it was done with ground water, with mixed success. The data is not really conclusive about how successful lake augmentation would be. Our studies are finding a similar problem looking at using surface water for lake augmentation. Not only is it very expensive, but the effectiveness of it is questionable. There are a lot of unknowns there so right now we've got to a point in the analysis where we're putting together the details, developed some potential routing and looked at the infrastructure. There are a lot of questions

though. For a feasibility study it's a little different in that two of the approaches we're looking at are significantly different from lake augmentation. It's like comparing apples to oranges. As an organization our goal is to focus on the reliability of water supplies in the region. We have evaluated the lake augmentation. In addition we're looking at for the use of surface water, connecting some of the communities in the NE to St. Paul Regional Water Service's (SPRWS) existing infrastructure, and also the feasibility of having a new surface water treatment plant that draws from the Mississippi River via the chain of lakes that SPRWS uses as its raw water source. This study is in the preliminary stage. Data has been collected data from each community, and there have been discussions with SPRWS on supply limitations, in an attempt to find an optimal solution that would result in the least investment for the best benefit.

Pumping 2 billion gallons/year into the lake, raising the lake level and increasing the amount of water that goes into the ground water below the lake is difficult to model because we don't have the information. Another potential problem with lake augmentation is how determining much of a regional benefit it provides. There are other lakes that are showing similar decline in the area. This likely wouldn't do anything for those other lakes and, in terms of adding water to the aquifer, this isn't the most efficient way to do it. The question remains - is there a regional benefit to augmentation of a single lake?

Reviewed next steps, which include: Continued analysis of infrastructure requirements; develop planning level cost estimates; assess benefits of each approach; evaluate approaches.

A draft project report is due June 30, 2014; final project report due October 2014. A lot of outreach will take place.

There was discussion about the cost of White Bear Lake augmentation. $50-55M is the set up cost. Estimated capital costs include road repairs and everything associated with building the system. There is an operational cost estimated at about $600,000/year, to purchase water from the St. Paul chain of lakes, and to operate the equipment. It's also uncertain who would own and operate it at this point.

There was discussion on surface water and reuse potential in the study areas. The jurisdiction of surface waters is mostly in the watershed districts and there has not been much discussion about watersheds districts. There was a question as to the role of watershed districts. Staff has been trying to work with groups in the communities and reach out to others that would like to be involved. There is some interest by watershed organizations in the NW metro area. Staff was encouraged to reach out to watershed district organizations. Comment was made that the watershed districts have not been brought into this as part of the structural foundation for the water reuse projects. It was mentioned that the Rice Creek Watershed District has been contacted by the homeowners association.

Comment was made that the NE study area doesn't quite line up with the DNR's ground water management area boundaries. Staff responded that the work was started before the DNR had delineated their ground water management area boundary. The DNR is trying to group people together that have a similar interest in that aquifer and hydrologic connection; the Council is looking more at the infrastructure side of things and how a potential solution might evolve, and the study area is focused on the distribution systems and the communities that need to work together.

There was discussion about the criteria used to select potential areas of study. The Council identified areas that might run into issues in the future as a result of projected increased growth. Another criterion is the willingness of the communities and any existing work group. The work group in the NE was initiated as a result of the action the Council received from the legislature last year to look into the issues with the NE. The Council was invited by the group in Dakota County. When the Council works with those groups we provide the initial scope of work and they take it and make it their own scope of work, adding their own issues and asking us to address some of the issues. The Council ensures that

their contribution to the scope is brought to the consultant. For the NW and west groups, there were existing groups, and there is a work group currently working on different issues on the western side. In the NW group, alternative water supplies have been looked at for a long time, and they are looking into other opportunities that are available.

A question was raised as to whether water quality concerns that communities may be struggling with will be part of this. Staff responded that the studies are not focused as much on water treatment it is on ground water contamination.

NORTHEAST GROUNDWATER MANAGEMENT AREA UPDATE

Paul Putzier, DNR, explained that a project advisory team comprised of 21 representatives from industries, cities, council, conservation districts, and state agencies has been assembled. In addition, a working boundary for the ground water management area (GWMA) has been proposed.

He said that the DNR believes the work being done in the management areas will improve the way that permits are done within a specific area, targeting particular issues that are within those management areas. It's guided by the DNR's state-wide strategic plan (which will be finalized within the next few months) for groundwater. There is a plan for the whole state and the DNR's role and responsibilities are the same whether in a management area or someplace outside of that. Once a ground water management area is designated, the work can be focused to connect hydro-geologically connected users. The DNR wants to increase its understanding within these areas about what the water availability really is, and what the sustainability thresholds are for a number of different parameters. At the end of the process, the DNR hopes to have a set of specific actions that will provide short- and long-term ways to achieve sustainability within the management areas.

Traditionally, a user came to the DNR with a request for a high capacity appropriation, and they may not have been thinking about how that appropriation affects a surface water feature. Now the DNR is saying that this is an important parameter to think about.

Since July 2013, the DNR has developed a proposed working boundary for the north and east metro. Two additional ground management areas have been started since January 2014, so now there are three management areas underway in the state. A project advisory team comprised of 21 representatives from industries, cities, council, conservation districts, and state agencies has been created for the NE metro area. Over 200 people attended a large stakeholder introductory session that was held in January. Every permit holder, elected official and municipality in the proposed work were invited. DNR has also met with individual stakeholders and organizations to try to understand what they're seeing out there in the groundwater, water use world. Four advisory team meetings have been held for the DNR's project so far. Based on some of the initial feedback from the advisory team the DNR revised the boundary. Other changes may be made depending on what is heard as we go. The three areas are the Straight River, Bonanza Valley, and North and East Metropolitan. Statutory language does actually ask DNR to look at how appropriations will affect water quality changes. So in some of the agricultural areas it becomes a big deal whether a high capacity well is put in somewhere.

This project in the cities is several months ahead of the others.

Putzier reviewed the strategies outlined in the DNR's strategic plan that will meet sustainability objectives and the proposed working boundary.

The first draft of the ground water management area plan will be reviewed in July, and will be finalized in late fall 2014.

One of the big challenges is to find a way to coordinate the permitting process and the management area development with all of the other plans that are taking place. There is a tremendous amount of

cooperation and conversation between the state agencies and others, including the watershed districts around water over the last several years. The DNR project needs to be more directly connected with individual community plans.

UPDATE OF THE MASTER WATER SUPPLY PLAN

Elhassan explained that the update of the master water supply plan approved in 2010 fulfills the requirement of MN Statute 473.1565 that directs the council to carry out planning activities addressing the water supply needs of the metropolitan area. Emerging issues have been identified that are not included in the current master water supply plan. Based on findings of the Council's technical analysis, it is clear that the current approach to water supply management and development is not sustainable; aquifer levels have declined, and lakes, streams, and wetlands are adversely impacted. If communities continue developing and growing and use ground water as the main source of supply, water supplies are unsustainable.

Elhassan reviewed the impact of 'doing business as usual' on the Prairie du Chien-Jordan, Glacial Sand & Gravel, Tunnel City-Wonewoc, and Mount Simon-Hinckley aquifers. He illustrated aquifers rebounding as a result of reduced pumping. There are many ways to achieve sustainability in the future, and staff is working with communities in the metro are to find opportunities to achieve sustainable and reliable water supplies in the future.

Another reason for the updating the Master Water Supply Plan at this time is the Council update of the comprehensive development framework, known as THRIVE MSP 2040. The Master Water Supply Plan serves as implementation plan for regional water supply policies and provides guidance to communities in developing their local water supply plans. As a result of the Council developing the comprehensive framework for THRIVE, communities need to update their local comprehensive plans, which have an element of local water supply plan. The updated Master Water Supply Plan can be used by communities as a guide when they are developing their local water supply plan.

Ali brought to the committee's attention to the statute stating that local water supply plans must be consistent with the metropolitan area Master Water Supply Plan.

Lanya Ross, Principal Environmental Scientist, discussed components of the Master Water Supply Plan, the approval process, and the schedule.

The update of the plan includes four parts: 1) updating the plan with new technical analyses and the regional ground water flow model; 2) updating the text of the master plan; 3) ongoing outreach to stakeholders; 4) formal public review and approval process. Updates will be brought to this committee regularly in 2014 for input.

The committee was provided with draft outline of the contents of the master plan, and was asked to provide feedback on the content outline.

Basically, plan will consist of the introduction, water resources description, sustainable management objectives, how sustainability will be monitored, more detail on the implementation plan, looking at the idea of sub-regional management strategies (different parts of the metro have different water supply issues); and tools (toolbox, update web page, etc.)

When everything is pulled together, the formal approval process begins, and the committee will be updated throughout the year. A draft will be brought to the committee late 2014 for endorsement, and then it will go through the full public review process, ending with adoption in June by the Council's Environment Committee, then the full Council and the DNR.

The public comment period will be in spring of 2015, with the goal of approving the Master Plan in 2015. Following approval of the master plan, efforts will be focused on stakeholder outreach to assist incorporating the master plan into the local comprehensive plan update process. This outreach effort will be a partnership between the DNR and the Council.

The committee was asked to let staff know if anything is missing, if they have questions about the content, if they have suggestions about stakeholder input or strategies. Comments can be called in or emailed, or the work group eshare site can be used. Ross gave a short demonstration of the new eshare site.

There was discussion about including stakeholder comments, whether it includes all communities in the metro area. Ross explained that the plan is to target it because as the technical analysis is done, staff wants to work with communities.

The question was raised about whether comments provided on the draft policies that the committee was asked to review at the last meeting will be shared and discussed at a future meeting. Elhassan said comments will be brought back to the committee along with the final draft of the water resources policy plan. Another option is to enter comments on the eshare site.

It was suggested that as the process begins to review the draft plan, the current plan should be available so that changes can be seen.

The comment was also made that there is a strong emphasis on sustainability, which is part of the statute, but there are other aspects in the statute as well that dictate what should be in the plan, e.g. jurisdictional operation, conservation, cost effectiveness.

UPDATE ON COMMUNICATION TOOLS FOR MAWSAC

Information shared in update of master water supply plan.

REPORTS FROM MAWSAC MEMBERS

No reports.

ADJOURNMENT

Business completed, the meeting adjourned at 11:59 a.m.

Susan Harder
Recording Secretary