Meeting Title: Master Water Supply Plan Community Technical Work Group Meeting #3

Date: April 7, 2015 Time: 10 a.m. to noon Location: 390 Robert St., St. Paul - Room LLA

Members in Attendance:
Mark Maloney, Shoreview
Klay Eckles, Woodbury
Bob Cockriel, Bloomington
Dale Folen, Minneapolis
Jim Graupmann, St. Paul
Brian Olson, Edina
Bert Tracy, Golden Valley
Steve Albrecht, Burnsville
Russ Matthys, Eagan
Jennifer Levitt, Cottage Grove
Steve Lillehaug, Brooklyn Center

Members Absent:
Michael Thompson, Maplewood

Met Council Staff in Attendance:
Leisa Thompson
Jeannine Clancy
Bryce Pickart
Sam Paske
Ali Elhassan
Lanya Ross
Brian Davis
Anneka Munsell
Deb Manning
John Chlebeck
Angela Mazur

Other Attendees:
Barb Huberty, Legislative Water Commission
Ray Wuolo, Barr Engineering

Meeting Notes:

Welcome & Introductions
Jeannine began the meeting by asking if there was any feedback from the minutes from meeting #2. No one had comments, so she moved on to the list of action items from meeting #1 and Met Council staff responses. Copies were distributed to the group with a request that they follow up if they had further questions.

Sam briefly discussed the meeting objectives and desired outcomes from the agenda. Members were asked to evaluate these as the meeting went on and give feedback at the end of the meeting on what worked and what didn't.

A member mentioned that work group members had anticipated walking through the Master Water Supply Plan (MWSP), but that this didn't appear to be on the agenda. Jeannine explained that the presentations were on aspects of the plan, and that we also hoped to get group discussion going in specific areas at this meeting.

DNR Presentation – Sustainability

Jason Moeckel and Joe Richter from the DNR discussed the DNR's definition of sustainability, beginning with an overview of Minnesota Statutes 103G.287 - Groundwater Appropriation. Jason outlined main factors the taken into consideration when trying to determine sustainability. The DNR:

- must consider current and projected water levels
- must make sure surface water ecosystems are protected
- cannot allow unresolved well interferences due to pumping
- cannot degrade water quality
- must protect ability of future generations to meet their water needs

Jason offered more detailed explanations of several of these points, explaining how protecting water ecosystems requires taking into consideration dry periods when they rely more on the flow of groundwater. He said that based on the best science currently available, the DNR asks when there will be an impact of about 15% (3.5 cubic feet per second) of streams' low flow. Moving on to water quality, he gave examples of known contaminated water that may be moved by pumping, and of pumping causing nitrates to migrate into aquifers.

Referring to the statute's mention of future generations, Jason defined the timescale as presumably being more than one generation out – anywhere from 50 to 100 years. He mentioned that this is where modeling becomes especially useful, and that while models will never be 100% accurate, combining them with monitoring over time allows us adapt our approach based on the impacts we're experiencing.

The last point Jason touched on was safe yield, and avoiding pumping aquifers in excess of the long term annual recharge so that they cease to yield water. He said that for confined aquifers, 50% of available head is a warning level; while 25% is the threshold that shows there is a potential problem..

A member asked about the criteria the DNR uses for rivers. Jason said that it comes down to protected limited flow, such as for the Mississippi river's being used for domestic water supply. He said the DNR would shut off all other uses before shutting off domestic water supply, and that the prioritization of domestic use applies to both groundwater and surface water, though the use of surface water is more likely to be affected in drought scenarios.

A follow-up question was asked about what mandatory water use reductions based on drought would mean to groundwater suppliers, who, while they may be facing long term issues of supply, are less substantially affected by droughts. Jason clarified that all groundwater use affects surface water in some way, and though the impact varies based on proximity and on drought duration, there's still value in conserving to minimize that impact. Joe added that all communities would be required to take action to curb outdoor water use if the governor declared a critical water emergency.

Another member commented that this could lead to users whose pumping doesn't affect a drought situation on the river being told they must shut down, and that he thought it was a blunt tool for that reason.

Clarification was requested on whether the hierarchy of uses that prioritizes domestic use only pertains to the types of permits issued by the DNR. Jason said that it did not, and that in a critical water emergency, municipalities would have to implement very restrictive limits on outside water use to be in compliance.

A member referenced the annual surcharge payment they make for seasonal outdoor water use, and asked whether a reduction equal to the amount of the surcharge would mean they'd be in compliance. Jason pointed out that this wouldn't take business and irrigation use into account.

A member asked how the DNR plans to use the regional model to evaluate permits. Jason said that as he understands it, the model is not designed to look at individual permits because of scale, that it was more helpful in terms of telling the DNR where they need to do more detailed surveying.

A follow-up question was asked about how the DNR sees the MWSP informing the water supply plans the communities are going to do, especially since they parts of those plans may not always agree with things in the MWSP. Joe answered that there are new templates being developed, and that while he doesn't anticipate there being a big change, their focus on helping communities try to conserve water in a meaningful way will match up better with the MWSP. He said they may also ask communities to take a harder look at aquifers to see if they can detect negative trends.

Another member pointed out that if cities are asked to take a harder look at things going on in their communities, there are some potential sources of confusion. He gave the example of looking at lakes in communities where the lakes have a long history of artificial augmentation, and how someone would be able to correlate what's going on in those lakes with what's happening with aquifers. In light of questions like that, he was uncertain how the MWSP would inform the process, and how the Met Council will view the template when it comes time for cities to update their water supply plans.

Jason explained that the DNR was working with the Met Council on that, so that there won't be disagreement. He added that he believed most people in attendance agreed that we can't just continue to pump groundwater the same way we're doing now, but that question is, if we're not doing that, what are we going to do in the near future to put our communities in a strong position, so in the future they're not dealing with what California is dealing with. He emphasized the importance of figuring out how the cities, DNR, and other partners can work together to improve their approach and get enough information to help them make good choices in where to invest resources.

Anneka's Presentation

Anneka explained that this presentation was an attempt to answer the "How much water do we have?" question the MCES staff had been asked often by including the DNR's concept of sustainability in a model There were some concerns over interpretation of the first few slides in the presentation, but Ray cautioned that one of the conclusions they were going to present was that the main binding constraint was flow conditions, not the particular condition Anneka had been discussing at the time of the question.

A member asked how this constraint would apply to systems that aren't directly connected to the Mississippi River. What parameters would be considered in those cases? Ray explained that even systems not directly connected to the river have an impact on it, because everyone who pumps in the area takes water that would eventually go to the Mississippi River. Other members commented that they felt this was a very important statement, but that until Ray's comment, it hadn't been clear, and that it was related to their concerns about the model not informing the DNR's appropriation decisions.

Several members expressed concern that the wording was not clear enough to avoid confusion or future misrepresentation, asking how it would be interpreted later by others not present for these meetings. Leisa asked whether they felt it was potentially misleading, and they agreed that it was.

A member asked about the timing, and Anneka replied that it's a steady-state model, and is trying to show the end result if you were to pump at the same rate for years, until your system came to an equilibrium, and what kind of equilibrium would it come to.

Another group member said that the group's concern was not with the work done on the model, but rather how the results are represented and how the way in which they're communicated could affect how they are interpreted five or ten years in the future.

Anneka clarified that the main questions they were trying to answer are:

1. What do people think is sustainable? and
2. How much water can we take out of the ground at the broader regional and sub-regional level and still meet that?

A member asked if this was one of the Metro Model 3 variables presented in an earlier meeting, and Ray said no, explaining that while those variables were related to geology, in this instance, we're pretending the geology is satisfactory, and instead asking what is the maximum we could take out of the entire system and still reach sustainability, if we use existing approaches?

Another member agreed that this was a question shared by many in the room, and said, "We're anxious to have a leader in that area. A body that can look at that and work with us to make sure we're looking at the future collectively and not individually."

A member asked whether the model took into consideration the differences in distribution of available water across the region, and how that affects various communities' access to it. Ray replied that the model was intended to answer that question, to show which areas have a lot of capacity and which areas may already be impinging on that capacity.

Anneka presented a list of the top 10 region-wide binding constraints, the factors limiting how much water we can get, and a member asked why the Mississippi River was at the top of the list. Ray and Lanya explained that the aggregate pumping of everyone in the metro region affects the flow into the river, and that reducing the flow in the Mississippi would affect the river's resilience during drought periods.

The member pointed out that this was a huge issue, because it potentially demonstrated the limit of the whole metro area, if any water not being taken out of the ground is ultimately being taken out of the Mississippi, and Ray agreed. Another group member expressed concern at how the impact of pumping

farther north would affect this limit and pumping in the metro area, and Jeannine mentioned that this was where other aspects of the MWSP, like reuse and conservation, became more important.

Jason added that the question about whether 25% is right number to use as constraint is important. He said this was not related to whether there's enough water in rive; it's just the flux in groundwater contribution within the Twin Cities area. He also mentioned that the question of the impact of diminished flows from upstream is the focus of a study the DNR is working with USGS on.

A member questioned the basis for using 25% as a constraint. Lanya explained that they began applying 15% as the constraint for any surface waters that weren't trout streams or vulnerable areas, but thought that was too restrictive. The goal then became to figure out how to not allow too much decrease in base flow in order to maintain the resiliency of the Mississippi River during drought periods. The DNR agreed that while more work could be done to look at the numbers, they thought it was a reasonable number to use for model analysis at this point. A member voiced concern over the wisdom of communities being told they could be using surface water instead of groundwater, if all such sourcing would impact the river.

Commenting on the pumping optimization slide, Lanya mentioned that in developing this approach, they took into consideration feedback they had received on making the most of infrastructure. In response to questions, Anneka clarified that this does not take conservation into account, and it is for all uses, including industrial. Bryce Pickart commented that he had some concern over the numbers for per capita usage.

Anneka asked the group for their thoughts on the definition of sustainability and on the method used. Members felt that the definition was a starting point, but were concerned that it might be interpreted as the one correct definition of sustainability, when they didn't feel it was at that point yet. There were additional concerns about how the information was communicated, with one member noting that the disclaimer about appropriate uses for the model was given three times verbally, yet wasn't clearly communicated in the written materials.

Lanya called out the two different ways MM3 had been used: one to show what the affect on the groundwater system would be given current plans, and the other to ask, "If we want to achieve this outcome, how much groundwater pumping can we do?"

A member asked whether the Met Council was deferring to the DNR's interpretation of sustainability. Jason commented that he wasn't sure whether "sustainable" was necessarily the right word to discuss the issue of really long-term goals, and that we have to innovate our way into meeting our water supply needs to keep water supply from becoming a constraint on business and development in the future. He thought that there were many different approaches available, but that we first have to change our current path, which we might not do without information like that from the model.

One member pointed out that people in the water supply business are more uncomfortable with difficult-to-define terms like sustainability because they're used to working with metrics, percentages, and numbers, but that despite this, they're willing partners who have an interest in being sustainable – if they can agree on what that means. He said that he's still not comfortable with how sustainability will be interpreted in the evaluation of his plan. Another member suggested that it could be helpful to define sustainability as "water use and appropriations before there are negative impacts."

This led to some comments regarding the balance between continued growth and water supply, and how inevitably at some point, water will be a limiting factor on growth, even if the Met Council doesn't consider it one at this time. Bryce explained that it wasn't considered a limiting factor now because the information we have doesn't indicate that it's an unsolvable problem in the near future, but that past 2040, this may be something that will need to be considered. Another member commented that knowing the point at which we might need to constrain growth is part of figuring out what we consider sustainable.

Bryce offered his view on sustainability as a long-term concept, looking out to where we might be in 2100. He suggested that what we need to do now is determine the prudent things to do to prepare ourselves to be in a good position in 2100. A member said that he felt that in general the area is sustainable, but there are pockets that aren't, and that the challenge is working together as a region to ensure that those which don't have enough water are able to get it. But he cautioned that he neither wanted the message to be, "We don't want to do anything", nor, "We're going to spend $300 million on a surface water plant. He said there was a lot of concern that the MWSP doesn't lead with conservation as an approach.

Other comments/evaluation/ conclusion
A decision was made to delay other presentations on the agenda until a later meeting.

Jeannine asked group members to fill out the evaluation forms that had been distributed earlier, and gave a brief overview of what she expected to cover at the next meeting on 4/21. Group members expressed a desire to focus on the MWSP review at the 4/21 meeting and put off presentations until a later date. Ali asked that members send questions to Jeannine and Lanya ahead of time.

A member stated that he felt there was still a bias toward surface water as a primary source being a key solution, and whether other mitigation or augmentation approaches tailored to specific locations that might require individual engineering solutions had been considered yet. Ray answered that these had not yet been evaluated, and the member suggested that discussing this as a viable approach, and including solutions that lay between conservation and an alternate source as a tool in the toolbox would be helpful to communities.

Lanya agreed, and acknowledged that those strategies aren't called out in the current draft. She said that's being worked on for an appendix, but if the work group members had projects in mind that they felt should be shared, she can provide a template for them to submit those so she can compile them. A member mentioned that the MWSP could be a tool to help communities become more open to those kinds of solutions, which may not have been the case before due to rules and past practices.

A member asked whether not having discussed the MWSP section by section at this meeting would put us in conflict with the review and approval timeline Lanya had presented at an earlier meeting. Lanya confirmed that discussing this soon would be important to stay on track with her timeline, and the group decided that doing so should be the top priority at the next meeting on 4/21.

Sam asked the group what worked for them and what didn't:

What Worked:
Members thought it was helpful for DNR staff to be at the meeting, and also thanked Ray for attending. They appreciated that Anneka's presentation gave them numbers. Several members expressed

appreciation that there was open discussion, stating that they felt the discussion and opportunity to provide feedback was more important than sticking to the agenda. One member commented that, “Today we got the most information we've gotten.”

What Didn't:
Members were still concerned about the term “sustainability.” The opportunity to have input on the agenda was also cited as an issue, and members asked that instead of telling them what they’re going to hear, meeting organizers should ask what they want to hear about.

Adjournment
12:15 pm