Minutes of the

REGULAR MEETING OF THE METROPOLITAN AREA WATER SUPPLY ADVISORY COMMITTEE

Wednesday, February 25, 2015

Committee Members Present:

Sandy Rummel (Metropolitan Council); Julie Ekman (DNR); Randy Ellingboe (Dept of Health); Katrina Kessler (PCA); Greg Anderson (Isanti County); Michael Robinson (Chisago County); Steve Schneider (St. Paul Regional Water Services); Jamie Schurbon (Anoka County Conservation District); Barry Stock (Savage); Jeff Berg (Department of Agriculture); Jill Trescott (Dakota County)

Committee Members Absent:

Mark Daleiden (Wright County); Georg Fischer (Dakota County); Chuck Haas (Hugo); Susan Morris (Isanti County); Dan Stoddard (Department of Agriculture); Lisa Volbrecht (Sherburne County); Glen Gerads (City of Minneapolis)

CALL TO ORDER

A quorum being present, Committee Chair Sandy Rummel called the regular meeting of the Council's Metropolitan Area Water Supply Advisory Committee to order at 10:03 a.m. on Wednesday, February 25, 2015.

Introductions of committee members present were conducted.

We will miss Tom Furlong, who has completed his term. The Committee is working on filling the open position on this committee.

APPROVAL OF AGENDA AND MINUTES

It was moved by Steve Schneider seconded by Jamie Schurbon to approve the agenda of the February 25, 2015 meeting. **Motion carried.**

It was moved by Barry Stock, seconded by Julie Ekman to approve the minutes of the December 11, 2014 meeting. **Motion carried.**

MASTER WATER SUPPLY PLAN UPDATE – Lanya Ross, MCES

a. Groundwater Sustainability
b. Review and Feedback on Plan Chapters
c. Summary of Plan Outreach Activities
d. Process, Schedules and next steps

"The Council staff would like to share receive MAWSAC member's feedback on the proposed contents, process and schedule of the updated master plan chapters. The staff will also summarize up-to-date plan outreach activities to officials and municipal staff and how feedback is incorporated in the development of the master plan"

Staff discussed take-a-ways from this presentation:

1. Groundwater sustainability in our region - How and what questions there are to communicate.
2. Critical content of the Master Water Supply Plan - What are the key messages that need to be included or questions answered
3. The schedule – Solid deadlines are in place

A slide shared from the DNR stated the Minnesota legislature defines sustainable use as it "does not harm ecosystems, degrade water quality, or compromise the ability of future generations to meet their own needs." Sustainable use can be viewed at a local, sub-regional and regional scale. Any one of the following issues or combination of factors may be a limiting factor for appropriation from a source:

- Legal use
- No interference
- No conflicts
- Stay within recharge thresholds
- No adverse effects to key surface waters
- Doesn't degrade water quality.

The following issues were identified in the 2010 Master Water Supply Plan, are still valid and addressed in chapter 5 of the draft update:

- Well interference
- Significant decline in aquifer water levels
- Impacts on surface water features, as well as trout or calcareous fen habitat
- Water quality, including vulnerability and known groundwater contamination
- Significant uncertainty regarding aquifer extent and productivity
- Reliable water supplies.

Staff discussed how much groundwater can be used without causing issues. An approach was presented that estimated the amount that could be pumped assuming a goal of maximizing groundwater pumping in areas where water supply infrastructure already exists. The goal must be achieved that does not cause unacceptable aquifer level decline, significantly reduce groundwater to connected surface waters, or change flow direction across significantly contaminated areas. Pumping rates were allowed to change at permitted wells in the seven-county metropolitan area open to any aquifer, with some exceptions. The following permitted wells were excluded: anything outside the 7-county metro area, lake level, nursery, sand/gravel washing, golf course irrigation, landscaping, once through heating and cooling.

The results of this approach were reviewed. Good water supply management means finding the most cost-effective and reliable way to keep groundwater use within the sustainable limits and implementing alternative sources where needed. When demand is greater than the sustainable groundwater amounts, other sources are available to meet needs such as surface water, wastewater, storm water and conservation.

Suggested draft limits on sources were then presented. The information from the results of the modeling approach previously discussed can be combined with estimates of the limits of other sources to highlight that the region has enough water to meet its needs and no single source should be relied upon to meet all demand.

The information used to support the draft graphics can be found in Chapter 4 of the plan called "water supply sources. " The draft data also supports discussion in Chapter 2 (Goal), Chapter 4 (Sources) and Chapter 6 (Outcomes).

The data is not intended to be final figures, but provides a way of considering the region's water supply sources together and will support a final info graphic, if the Committee agrees it is a useful way to communicate about the region's water supplies.

Another way information could be considered is by sub region, reflecting the understanding that "one size does not fit all" in regards to water supply availability. Hydrogeologic conditions vary considerably across the region and should be considered as part of regional planning. Presented this way, included in chapter 6 on Outcomes, the information may be useful to inform regional and sub regional planning goals and to help track progress toward regional goals. The modeling information would not be appropriate for using in local permit decisions.

<u>Review and Feedback on Draft Chapters:</u>

- Chapter 1 – Changes to what it means to be consistent with the Master Plan (some content moved to the Local Planning Handbook, a decision diagram added.

- Chapter 2 – Policy description revised to be consistent with draft Water Resources Policy Plan – water supply policies were integrated with wastewater and water resource assessment policies. Water supply strategies remain essentially the same. New figure with DRAFT data presented for your consideration to see what key points they illuminate for you.
- Chapter 3 – Reorganization and added detail including draft water demand projections
- Chapter 5 – Revisions to issue descriptions, added figures to illustrate issues including updated regional groundwater flow model 2040 scenarios.
- Chapter 8 – Better delineation of key partners in implementation of the Master Plan and supporting partners with important other roles in water supply planning. Also inclusion of discussion of funding sources.
- Chapter 4 – Water Supply Sources – This chapter describes the major water supply sources available to the region, including challenges and opportunities by the region's water supply managers and decision-makers. This chapter also discusses the approximate limits on available sources as well as a graph to bring information together.
- Chapter 6 – Outcomes – This chapter lays out what sustainable water supply outcomes will be achieved through the implementation strategies in Chapter 7, and how progress will be tracked.
- Chapter 7 – Implementation Strategies - This chapter presents the details of the implementation strategies, the actions through which sustainable water supplies will be achieved. A sub regional approach to planning is presented to address differences in sources and issues. The chapter outlines Council actions and help requested from key partners, achievements/deliverable, and a summary of resources needed.
- Executive Summary & Bibliography – The Executive Summary will not be completed until the Master Plan chapters are finalized. Of consideration is key content that should be included.
- Community Profile – Updates provided in Appendix 2 of the original Master Water Supply Plan. One page summary sheet that summarized projected water demand, sources and water supply issues. Provided for each community of their system. One difference is non-municipal water use is being identified as well as water use by category, as well historical use. Will have a list of potential issues and is being updated.

Summary of Plan Outreach Activities:

Outreach has been conducted with this advisory committee along with a Community Technical Working Group, public meetings (over 170 attendees representing more than 70 communities), ad hoc community meetings (45 attendees representing over 32 communities), one-on-one discussions, including data sharing between Council staff and community planning and utility staff (90 public water suppliers), and information shared on the Council's website.

Schedule:

Time Period	Master Plan Update - Chapters to Review
July 2014	Chapter 1: Overview Chapter 2: Goal, Principles Chapter 8: Roles & Responsibilities
October 2014	Chapter 3: Water Use Chapter 5: Key Water Supply Issues Attend public meetings for Water Resources Policy Plan information review
November 2014	~~Chapter 9: Resources/Tools~~ (To be included in Local Planning Handbook)
December 2014	Attend public meeting with city utility and planning staff
January 2015	FINAL DRAFT COMPLETED for MAWSAC
February 2015	Chapter 4: Water Supply Sources Chapter 6: Outcomes Chapter 7: Implementation Strategies MAWSAC review of final draft
Spring 2015	PUBLIC REVIEW
Spring/Summer 2015	Review & incorporate public feedback
Summer 2015	**COMPLETE & APPROVE**

Key Milestones:

Time Period	Key Milestones for Master Plan Approval
uary 25, 2015	MAWSAC receives full draft
March 11, 2015	MAWSAC provides comments to Council
March 24, 2015	*Informational presentation to Environment Committee*
March 25, 2015	MAWAC recommends final edits to prepare for public review
April 8 & 14, 2015	*Informational presentations to full Council and Environment Committee*
April 23, 2015	**MAWSAC recommends Master Plan go out for public review**
April 28, 2015	Environment Committee recommends Master Plan go out for public review
May 13, 2015	Met Council approves Master Plan draft for public hearing
June 29, 2015	Public Hearing
July 13, 2015	Public comment period ends
July 22, 2015	MAWSAC reviews comments heard thus far, discusses scope of changes
July 31, 2015	Public comments reviewed and summarized, incorporated into Master Plan
August TBD	MAWSAC recommends Master Plan approval (if not done at previous meeting)
August 11, 2015	Met Council Environment Committee recommends Master Plan approval
August 26, 2015	**Met Council adopts Master Plan; DNR approves Master Plan**

Committee feedback and discussion included:

- Potential water sources – Not one source should be relied on for all water demand. Clarification should be provided in the text to clarify basic breakdown of sources.
- Potential water sources – We have more than enough water, but need a footnote that it does not include the St. Croix and the Minnesota. Important to illustrate we have enough water, but we also know each source of water requires a combination to meet the sustainability definition. The chart shown was complicated for a non-technical person.
- Potential water sources – Highlight what goes in to the range of the hypothetical data. Technical report will be included as an appendix. Links to the data used to calculate will be included in the bibliography.
- Could you define region? It is referring to the 7 county metropolitan area and expanding to 11 county metro area. Need to define what a region is as part of the plan.
- Do some of the shoulder counties impact the way we will look at water supply in the 7 county metropolitan area? Yes, it is why we will be expanding the evaluation to 11 counties considering growth to the I94 corridor.
- Chapter 2 – Had major revisions. Those present were requested to review Chapter 2 in the Master Water Supply Plan.
- Chapter 4 – Those present were requested to review Chapter 4 and consider if information provided in the chapter fulfills the objective. If not sufficient, should anything be added?
- Chapter 6 – Those present were requested to review Chapter 6 and consider if information provided in the chapter fulfills the objective. If not sufficient, should anything be added?
- Chapter 7 – The sub regional work groups and having plans for the work groups. The level of detail may be too much. Would like something measureable and can be documented.
- Chapter 7 – How does this chapter address the work already going on in the North and East metro? Strategy #1 in chapter 7 addresses collaboration among agency partners.
- Chapter 7 – Do the sub regions match up with the work groups? No, they are not the same.
- Are we thinking about how we can simplify the way we look at our water? It is being considered.
- It would be nice to say the strategies for the North and East metro and the partners identified for the North and East metro are aligned (groundwater management plan).
- Would minimize hydrological data maps if the workgroups are on political boundaries because it confuses the reader.
- Need a map showing what agencies are working on water and the overlap.

- Staff indicated roles and responsibilities of different agencies and looking at consolidation of roles are being reviewed in the legislature. Ideas of roles and helping communities to understand who is handling the different facets of the process. Suggests having the author of a report by the PCA regarding water governance in Minnesota attend this committee to review the findings. Those present agreed.
- Chapters 4 and 6 – No comments.
- Communities would like input on per capita use for the future.
- Has a brief survey been sent to communities asking for feedback on what they would like or not like provided on their profile? No, we have not. However, discussions have been occurring since 2010.
- Are the community initiatives being worked on taken in to consideration? Not currently, due to the variety of initiatives currently happening across the region.
- Information provided related to wastewater, groundwater pump out and thinking about this in the context of reuse is very helpful as a planning tool for the future as other sources are sought for drinking water.
- In community profiles are irrigation and agriculture needs summarized? Yes, summaries will be done for all communities.
- Hoping for robust discussion in March for final review of the draft.
- Suggestion for March MAWSAC meeting to be a working group meeting. This would be a good time to provide feedback. Location at Metro 94 on Etna Street off Highway 61 to allow for discussion.

TECHNICAL PROJECTS UPDATE – Water Supply Planning Staff, MCES

a. Metropolitan area water use and future projections (John Chlebeck)
b. Regional Groundwater Model (Anneka Munsell)

"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. This presentation summarizes the status of technical studies conducted by the Council."

Staff shared a technical update with the Committee related to projecting water demands. The data review and analysis included sources of data, quality of data, and trend analysis. The method selected included objectives of transparency and ease to explain and was supported by data. Timeline for the methodology was October 2014 for the first draft and January 2015 for the second draft.

The feedback process reflected written comments from 90 communities out of 128 public water systems in the metro area. Five meetings were held around the metro with 45 attendees to the meetings. Projections were revised based on feedback from local water suppliers on population forecasts and anticipated trends.

The summary method used an average of historical water use per capita assumed to represent future (2040) water use per capita, except where communities identified trends.

Projected Water Use = Projected Population x Per Capita Water Use

Regional trending data was provided reflecting water use in per capita water use and total water use and the population. Included is data on winter water use. The data shows one size does not fit all due to indoor and outdoor water use varying by community as well as summer and winter water use. Regional projections show the potential for increased use-to 2040.

Groundwater modeling in the metro area was reviewed. Groundwater modeling is a computer model of the groundwater flow system and shows how the aquifers interact with each other, surface water and function under different scenarios. The value of this type of modeling is it serves as a tool for regional water supply planning to potentially evaluate "what if" scenarios and sustainable limited based on current understanding of sustainability. Its usefulness allows for cumulative and long-term impacts of many individual decisions, compares different scenarios, and is a starting place for more localized

studies. It is not useful "as is" for localized groundwater and surface water impact analysis or localized well management.

The model being used is Metro Model 3 which uses the US Geological Survey software MODFLOW-NWT, A Newton Formulation for MODFLOW- 2005. Metro Model 3 was developed with a technical advisory committee consisting of professional geologists and professional engineers, government scientists, private-sector consultants, and representatives from academia. Data was collected from partners such as the Department of Natural Resources, US Geological Survey, Pollution Control Agency, Department of Health, MN Geological Survey, and local governments and utilities.

Metro Model 2 was the previous model and covered the seven county Metropolitan area and contained approximately 15,000 calibration points. Metro Model 3 covers the eleven county Metropolitan area containing 82,000 calibration points.

In evaluating projected range of 2040 demand from a preliminary perspective, average daily demand used input and values from communities for calculations. Accounting for uncertainty in projections included weather and economic variation from year to year as well as impact of conservation. Approximately 20% range in water use was above and below average.

Key assumptions for the demand scenarios indicate water demand will continue to be supplied by sources being used in 2012. Existing wells represent current demand and hypothetical wells are added to represent future demand. The 2040 water demand is likely to fall in the range of about 20% above and below average projected demand.

Results will be used to help focus water supply planning efforts as well as compare benefits of different sub-regional water supply approaches.

Committee feedback and discussion included:

- Assuming water sources we have in 2012 continue in the future, how about changes in land use that might affect the recharge of aquifers? A quick look at soil-water balance model developed to do recharge inputs that reports what gets below the root zone, comparing 1988 to 2010. The recharge did not change greatly and depends on what the climate is doing.

LEGISLATIVE UPDATE: CLEAN WATER FUND REQUEST 2016-2017 – Ali Elhassan, MCES

Dr. Elhassan provided an update on the 2016-2017 Clean Water Fund Request. The Council requested $3 million from the Legacy Clean Water Fund to apply $2 million toward the Metropolitan Area Water Supply Sustainability Support (in the form of Water Resource Policy Plan, Master Water Supply Plan, and is the same amount requested previously to sustain studies and cover additional cities we haven't been working with in the past). A new initiative being introduced is $1 million over two years from the Water Demand Reduction Grant Program. This grant could help cities to replace inefficient hardware to aide in water conservation. Toilets which used 6 gallons per flush are being considered for replacement with units that utilize 1.5 gallons per flush. The funding request is the lowest among agencies that use the Clean Water Fund. The benefits are distributed among 180 communities in the Metro area.

House File 846 of the Governor's Budget addresses the clean water fund as part of the Environmental bill. The bill has been introduced and had its first reading and has now been referred to the Agriculture Finance Committee.

Committee feedback and discussion included:

On the $3 million request, does it include the 7-county Metropolitan area? Yes.

With water reduction grants, is there any consideration being given to include the 11 county Metro area might be funded as well, since it is state funding? Would love to increase the funding, a request was made to write to the Clean Water Fund and legislature to provide the funding; we would be willing to

consider expanding the criteria. What about a project that is just outside the parameter of the area? We can add the criteria in the grant distribution. If there is a benefit, we can look into that.

Would recommend increasing the request to $10 million to encourage initiatives.

NEW COMMUNITY TECHNICAL WORK GROUP – Ali Elhassan, MCES

Dr. Elhassan shared information about a new community technical work group being established. The purpose and outcomes for this new technical working group is to provide formative input to the Council on technical, financial, and operational issues related to regional water supply planning. Desired outcomes include a better understanding of roles and planning process, tools and data, groundwater issues, challenges and concerns, water sustainability, identifying additional study needs, fostering collaboration for successful solutions between MCES and its communities. Information gained from this work group will be integrated in to the Master Water Supply Planning process. A preliminary agenda and processed schedule have been

The 12 members of the committee are city engineers or public works directors as well as members of APWA, AWWA, and CEM. Six sub-regional groups were set up around the Metro area (Northeast, Southeast, Washington County, Southwest and Northwest).

Meetings are open. Observers are welcome to attend.

Committee feedback and discussion included:

Is the work group temporary? Initially yes, but could be longer-term.

I see the value of discussions and input received. I can also see the value in sharing outcomes with collaborating agencies.

REPORTS FROM MAWSAC MEMBERS

Randy Ellingboe mentioned the legislative bill for the Clean Water Fund. A number of state agencies have drinking water initiatives that are likely of interest. Second, they are proposing a fee increase for service connection fees. Governor's budget bill includes that. It has been about 10 years since the fee has been increased. A modest increase of 16 cents per month that will help provide funds for initiatives to be developed.

Chair Rummel shared Commissioner Ellinger spoke at last Clean Water Council, "Of all the money we spend on health, we spend 90% on medical sector, which addresses only 10% of the health needs. The other 90% of health needs are addressed through public policy, particularly water policy." He included other examples. The work we are doing is important and we don't always hear that enough. We never talk about health. Chair Rummel encouraged those present to get the word back to their agencies. We are among the five states that charge the least for our water resources. We have tremendous water resources to protect.

ADJOURNMENT

Business completed, the meeting adjourned at 12:03 p.m.

Susan Taylor
Recording Secretary