

Metropolitan Area Master Water Supply Plan – Public Comments and Responses (1/22/09)

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Comment

Response

Commenter

Metropolitan Area Master Water Supply Plan – Public Comments and Responses (1/22/09)

COMMENTS

RESPONSE

COMMENTER

General Report Comments		
<i>General Comments</i>		
1. The Master Plan creates a framework to guide future water supply planning decisions.	Thank you for your support in the development of and for reviewing the Master Water Supply Plan.	42
2. The Master Water Supply Plan is a step in the right direction for bringing regional awareness to the importance of sustaining our water resources.		25
3. The Master Plan is a communication tool for State, regional, and local entities.		35, 42
<i>Statutory requirements</i>		
4. While the legislature mandated this effort, the societal concern for protecting drinking water resources prompted this legislation, how does the Plan acknowledge this?	The Master Water Supply Plan acknowledges the societal concern for drinking water protection in Chapter 1. Beginning on page 1-1, the report outlines rationale for water supply planning. The report acknowledges that water supplies are relatively abundant, however that supplies are not evenly distributed throughout the region, which has lead and will continue to lead to local challenges to meeting water supply demand.	1

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	<p>Furthermore, forecasted growth as well as changes in climate will inevitably affect water supply for the entire region. The report goes on to describe previous efforts analyzing water supply and demand throughout the region.</p> <p>Ultimately, it was the expected pressures on the region's water supply and the societal pressure to protect regional water resources that led the Minnesota Legislature to initiate a comprehensive process for investigating water supplies and planning for their sustainable use.</p>	
<p>5. Minnesota Statute requires the Department of Natural Resources approve the Master Plan, how will this happen?</p>	<p>The DNR has been an active participant in the development of the Master Plan. The Metropolitan Council anticipates the Department of Natural Resources will approve the Plan following the Advisory Committee's approval of the Plan.</p>	<p>6</p>
<p><i>Master Plan Recommendations</i></p>		
<p>6. The recommendations to consolidate state agency regulatory activities with the Metropolitan Council's planning activities creates the potential to confuse state agency approval/denial authority (established in formal rule making) with regional planning guidance. Any statute consolidating the authorities of state agencies with the Metropolitan Council should include modifications of existing agency rules or</p>	<p>The commenter is likely referring to the Council's 2007 water supply planning report to the Minnesota Legislature which recommends that the Minnesota Legislature "Approve changes clarifying agency roles in water supply plan review and consolidating into one statute the requirements of community water supply plans in the metropolitan area. Link water supply planning to comprehensive planning." The 2007 legislature responded by updating Minnesota Statutes,</p>	<p>5</p>

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possibly the establishment of a multi-agency rule to clearly establish the requirements of municipalities submitting their plans and permit applications.	<p>Sections 103G and 473 to reflect this recommendation.</p> <p>The Master Plan does not and is not intended to consolidate state agency roles through legislation. Rather, the Plan is intended to clarify agency roles and increase the transparency of permit and planning requirements and approvals.</p>	
7. Does the Master Plan recommend any specific legislative actions?	While the Plan does not provide specific legislative recommendations, Chapter 6 does outline a number of data collection activities and analyses that should be adopted by stakeholders. Several of these activities are currently unfunded, which may require legislative action.	11
8. The Master Plan and the legislature should be consistent regarding water conservation.	The Metropolitan Council has provided the Minnesota Legislature with updates throughout the development of the Master Plan and will continue to provide the legislature with water supply planning updates as directed in Minnesota Statutes, Section 473.1565. The Minnesota Legislature will be provided a copy of the Master Plan once it is approved by the Metropolitan Area Water Supply Advisory Committee, Metropolitan Council, and the DNR.	11
Metro Model 2		
Recalibration		

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<p>9. A recalibration of the model should be conducted prior to publishing the Profiles. The model used valid calibration targets for hydraulic conductivity but did not include other data sets including additional pump test results from wellhead protection plans and sand content mapping of the Quaternary aquifer sediments conducted for Metro Model 1. A recalibration using this information would greatly improve the reliability and acceptability of the model results.</p>	<p>The Council is working with staff from Barr Engineering, the Minnesota Department of Health, the Minnesota Department of Natural Resources, Dakota County, and the University of Minnesota to recalibrate the model and update the draft Plan before bringing it before the Council and the Commissioner of the DNR for approval. Model recalibration is expected to be a regular process, and the Council intends to release periodic reports summarizing changes.</p>	<p>40, 46</p>
<p>Methods</p>		
<p>10. What are the methods and measures used to ensure the soundness of Metro Model 2?</p>	<p>The methods and measures used to ensure the soundness of the Metro Model 2 are reported in the forthcoming Technical Report. A technical advisory group was convened by the Council to provide guidance and feedback on the Metro Model 2 development process. Following public review of this draft Master Plan, a smaller technical work group was convened by the Council to develop a method to recalibrate Metro Model 2.</p>	<p>58</p>
<p>Model Accuracy</p>		
<p>11. The tone and tenor of this draft leads readers to believe that it is “a strong foundation of accurate and accessible technical information;” in fact, this draft is really an excellent base from which to build</p>	<p>A significant effort of this plan was to collect and evaluate data from a variety of sources around the region. While there is error inherent in all natural resources data, the Council used the current best available information and very</p>	<p>5, 10, 12</p>

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<p>an accurate, technical data set from which communities can be confident in as they address their water supply needs and issues.</p>	<p>robust methods to analyze the data and develop the regional groundwater model. Although the model may not be accurate and precise, it is an appropriate tool for conducting a regional assessment of groundwater availability and potential impacts. The word accurate was used in relation to the model but it was not intended to describe the model results. The Council will adjust the wording to explain the uncertainty and sensitivity of the data and model.</p>	
<p>12. The Master Plan describes Metro Model 2 as accurate and precise. While the model is an excellent starting place, the language in the report may mislead individuals as to the accuracy of the model.</p>	<p>The focus of this plan is to provide a framework from which to build upon for regional and local water supply planning. The planning process will be dynamic so that as more information better tools to evaluate the information become available improved predictions of supply availability and impacts can be conducted. Text within the Plan has been revised to ensure the tone of the Plan is consistent with this intention.</p>	<p>10, 12</p>
<p>Integrating water supply planning with comprehensive planning</p>		
<p>13. Metro Cities' supports the plan as it is proposed, with the understanding that its purpose is to serve as a general framework to assist and guide communities in their water supply planning, but not usurp local decision making processes or create unreasonable expectations and costs to cities. Metro Cities' policies oppose the elevation of water supply to "regional</p>	<p>Thank you for the support. The Metropolitan Council has no intention of making water supply one of its systems. However, the plan (Principle 1, page 2-3) does recognize the important connection between water supply planning and other regional planning efforts.</p>	<p>37</p>

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<p>system" status, or the assumption of the Metropolitan Council control of water supply infrastructure.</p>		
<p>14. How will the Master Plan affect sewer planning? If the Master Plan is going to be used as a planning tool and communities are going to be held accountable, the Metropolitan Council must also consider water supply availability when planning sewers and transportation.</p>	<p>Chapter 2, page 2-3, of the Master Plan states, "Water supply availability will not necessarily limit nor be the only reason growth occurs in a specific area; rather, the region will identify sources available for a community's use and will highlight issues associated with these sources. Identified issues will then be addressed when communities plan to meet their future water demand.</p>	<p>4, 10</p>
<p>15. We would like assurance that the region's wastewater system, transportation systems, and parks and open space will also support and align with local water system expansion and expenditures.</p>	<p>"The Metropolitan Council will work with communities to ensure that their water supply plans are developed on the same timeframe as their transportation, wastewater, and park system plans. If a community's water supply is limited and it already has major plans for infrastructure, wastewater, and transit, that community will look to this Plan for a list of available water sources and the issues that might be associated with each of them. In communities where major infrastructure does not already exist, the community and the region will consider water availability as part of long-term planning to ensure that water supplies are identified prior to development. In all of these instances, the Metropolitan Council will work with communities to ensure that consistency with this Master Water Supply Plan is achieved while maintaining a balance between the region's needs and the community's."</p>	<p>5, 10</p>

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<p>16. Does the Master Plan incorporate comprehensive plan projections? Will the Master Plan be updated with comprehensive plan updates?</p>	<p>The Master Plan incorporates comprehensive plan population projections in water demand forecasts. The population forecasts contained in the report and used to project future water use for each community are consistent with the Metropolitan Council's population forecast used for comprehensive planning. The population forecasts reported in the Master Plan will be updated or amended when comprehensive plan population forecasts are updated or amended.</p> <p>Text has been added to Chapter 5 and Chapter 6 to better clarify how population projections are used to forecast water demand.</p>	<p>10</p>
<p>17. We strongly promote integrating water supply needs with future land use planning in order to maintain an adequate water supply for future generations. We encourage using the language promoting development of community sewer and water in areas of known groundwater contamination.</p>	<p>The first guiding principle of the Master Plan is "Water supply planning is an integral component of long-term regional and local comprehensive planning". The Master Plan specifically guides community water supply development in areas of groundwater contamination using the community profiles and issue response tables. Communities with areas designated as Special Well Construction Areas or as Drinking Water Supply Management Areas with high or very high vulnerability to potential sources of contamination are identified (Appendix 2). Minnesota Department of Health staff provided recommended actions for those communities to take (Appendix 3).</p> <p>Similar to the quantity issues identified in the</p>	<p>25</p>

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	<p>Master Plan, quality issues will not necessarily limit growth but will require an appropriate level of planning to ensure the quality of the water source is protected and meets current public health standards.</p>	
<p>Community Profiles and Issue Response Tables</p>		
<p><i>General Comments</i></p>		
<p>18. Information contained in the Profiles is not only directed at public utilities. The information is also for city planners, regulatory agencies, and the Metropolitan Council.</p>	<p>Text in Chapter 5 was edited to better reflect this reality.</p>	<p>42</p>
<p>19. The Plan should outline possible solutions to the issues that have been identified on a more regional basis rather than indicate that it will be the cities responsibilities to find alternative sources to meet future demand. The Plan should discuss when the Mount Simon Hinckley aquifer is an appropriate source to meet the increase in demand due to population growth.</p>	<p>The plan currently identifies water supply options for each community, but no regional water supply solutions are proposed.</p> <p>Text in Chapter 5 has been edited to provide a more robust description of regional water supply availability.</p> <p>Analyses conducted for the Plan suggest that, on a regional level, the Twin Cities metropolitan area has enough water to meet demand through 2050. However, the Plan recognizes that information about water availability is limited in many areas across the metropolitan area. Chapter 6 outlines several data collection and analysis activities that local, regional, and State organizations should</p>	<p>36</p>

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	<p>undertake.</p> <p>Evaluation of alternatives to meet a sub-regional demand is a natural next step in the implementation of the plan. Part of this effort could be determining when use of the Mt. Simon is appropriate. A next steps section will be added to the plan.</p>	
<p>20. The Plan identifies areas in the metropolitan area where significant drawdown in aquifers may occur. The region may see significant aquifer drawdown in some areas sooner than what the Plan suggests.</p>	<p>The Metro Model 2 is not designed to predict exactly when drawdown will occur. Instead, it is designed to predict what drawdown will be under a defined pumping stress.</p> <p>The Plan will be edited to clearly state that unacceptable drawdown may occur before 2030 or 2050 in some areas. The maps only represent what aquifer conditions will be in 2030 and 2050.</p>	<p>39</p>
<p>21. The Plan Appendix 3 presents the terms “available head” as a threshold response trigger. The Plan does not provide definitions of these terms. New and undefined terms that appear only in an appendix of the Plan should be referenced and defined earlier in the Plan.</p>	<p>Chapter 5 was edited to include a definition of “available head”. The term “average head” was deleted from the Plan and replaced with “available head”.</p>	<p>6</p>
<p><i>Development of the Profiles and Issue Responses</i></p>		
<p>22. What was the Department of Natural Resources role in developing the Profiles and Issues Response Tables?</p>	<p>Chapter 1, page 1-8 of the Plan states, “Beyond their role on the Metropolitan Area Water Supply Advisory Committee, the Department of Natural</p>	<p>37</p>

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	<p>Resources, Department of Health, Pollution Control Agency and the Minnesota Department of Agriculture each played a unique role in the development of this Plan.</p> <p>“Because this Plan focuses on water resource availability, the Minnesota Department of Natural Resources, with their charge to manage Minnesota’s water resources, was an intimate partner in its development. The Plan is also subject to their approval.</p> <p>“The Metropolitan Council and the Department of Natural Resources worked together to identify water supply options and conditions of use that are presented in this Plan. Decision-makers from the two organizations met routinely, and will continue to meet, to discuss each community’s potential sources and projected water use conditions and to guide water supply development so as to ensure protection and sustainable use of the regions water resources.”</p>	
<p>23. Do the Profiles reflect water supply issues that exist for one community in all the communities a subregion? If so, how do the Profiles reflect how activities occurring in adjacent communities affect other communities?</p>	<p>The profiles do reflect an analysis that takes into consideration the effects of projected withdrawals in all communities. Therefore, withdrawals in adjacent communities that may affect a community are included. However, the profiles only note those communities within which an affect is predicted and not adjacent communities if the issue is not predicted to occur in the adjacent community.</p>	<p>12, 36, 42</p>

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<p>24. Does the Department of Natural Resources have any criteria for all regulated water users that could be referenced in the Plan?</p>	<p>All water appropriations have certain conditions such as measuring the withdrawal and conservation plans. Others may be specific to the appropriator.</p> <p>Chapter 4 will be edited to provide more detail about Department of Natural Resources criteria.</p>	<p>6</p>
<p>25. The Metropolitan Council's water supply technical information is developed and maintained as a supplemental focus to plan regional development and provide supporting services. The Department of Natural Resources has a Technical Resources section to support its regulatory and consulting programs to monitor, manage, and regulate the State's natural resources and ensure sustainability. The Plan should acknowledge DNR's existing programs to monitor the State's resources and examine a consolidation of the metropolitan technical information into the DNR's Technical Resources section. Furthermore, the DNR should modify its Technical Resources section to provide a metropolitan area water resources and water supply technical program that provides detailed information to municipal, county, and regional agencies.</p>	<p>Chapter 4 of the Master Plan provides an overview of roles of entities involved in water supply planning. Through Minnesota Statutes and Minnesota Rule, the Department of Natural Resources is charged with managing the allocation of Minnesota's waters. The intention of the Master Plan is support the DNR's effort to protect Minnesota's waters in the context of long-term regional planning.</p>	<p>6</p>
<p>26. The Plan, Appendix 3, presents many water management programs of the Department of Natural Resources that includes citing the</p>	<p>Minnesota Statutes and Minnesota Rule direct the DNR to manage the appropriation of Minnesota's waters.</p>	<p>6</p>

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<p>corresponding rule. In other portions of the appendix the response to extreme impacts indicates “responses” by municipal water suppliers without citing statutory or rule authority. The DNR has not established thresholds and required responses in its appropriation to address threats to the states resources. The Plan should not introduce new requirements for municipal water suppliers that do not cite corresponding statutory authority and Minnesota Rule. The Plan should limit its responses to those that reference statute or rule.</p>	<p>Chapter 5 was edited to provide more detail regarding the development of thresholds.</p>	
<p>Forecasts</p>		
<p>27. How were the population forecasts for 2040 and 2050 calculated?</p>	<p>Chapter 5 was edited to provide more detail regarding population projections. The Council used a methodology described in detail in the 2007 report to the legislature and briefly below based on 2004 water use data. While local plans may have different forecasts based on different methodologies, the total population numbers should mirror those in the Council’s Regional Framework. Any discrepancies in these numbers will be corrected. However, for the master plan the Council will continue to use the water demand forecasts generated for the 2007 report to the legislature. As part of the implementation of the plan, the Council will endeavor to rectify the Council and community water demand forecasts.</p>	<p>12</p>
<p>28. Do the Profiles take into consideration economic change effects on water use and population projection?</p>		<p>43</p>
<p>29. Cities of Mound, Mayer, Norwood Young America, Cologne, New Germany, St. Bonifacius, Waconia, and Watertown request that data included on their Community Profiles reflects the data in their water supply plans.</p>		<p>16, 30, 33, 49</p>
<p>30. Several areas of the Bloomington Profile</p>		<p>5</p>

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<p>contain erroneous information that should be amended. Under the heading of Maximum Day for the years 2010, 2020 and 2030, the predicted maximum days should be changed to reflect those contained in the City of Bloomington's Water Supply Plan.</p> <p>31. Also the, under the estimated additional wells column the Profile indicates the addition of four more wells to meet future demands. This is incorrect. Our Water Supply Master Plan does not indicate the need for any additional wells if we continue our wholesale purchase of water from Minneapolis.</p>	<p>The 2040 forecasts are based upon the projected 2000-2030 household growth trends, with greater weight given to growth between years 2020 and 2030. 2050 forecasts were then developed by adding the 2030-2040 household growth to the 2040 household forecasts.</p> <p>More specifically, 2040 household forecasts were developed using the average of two growth projections: 1) the 2030-2040 growth if households grew at the same rate as projected from 2000-2030 (based upon a linear trend extrapolation), and 2) the forecasted household growth between 2020 and 2030. Both these numbers were averaged to predict average growth. This average growth was added to the 2030 household forecast. (This has the effect of giving 2020-2030 projected growth greater weight than overall 2000-2030 growth). To forecast 2050 household growth, the 2030-2040 projected household growth was added to the 2040 household</p>	
<p>32. Shakopee water demand projects past 2030 are beyond our current expectations.</p> <p>33. Additional information provided by the Metropolitan Council staff after the December 3rd meeting, sought to explain the basis for the population projections. It now is apparent the numbers are actually for a combination of Shakopee and Jackson Twp. That fact should be explicitly stated in the report</p> <p>34. Shakopee, however, continues to question the projections as they appear to rely too heavily on the assumption that Shakopee will continue to grow after 2030 at the levels</p>	<p>Forecasts</p> <p>The water use projections included in the Profiles are based on the Metropolitan Council's population forecasts, which do take into consideration land use and economic trends. Therefore, the Profiles do, indirectly, take into consideration economic effects on water use.</p>	12

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similar to those experienced between 2000 and 2030.		
<i>Groundwater Quality</i>		
35. The Plan should mention that chemistry of water from one community may not always be compatible with another community.	A more robust discussion of challenges associated with water supply system interconnections will be added to Chapter 3. Reference to online maps of municipal water treatment (based on MDH data) will be included.	39
36. We suggest including language that encourages communities with known contamination to explore the possibilities of interconnection with neighboring communities.	The Master Plan supports interjurisdictional cooperation among communities by providing regionally consistent datasets and water supply guidance to communities and environmental reviewers. That guidance appears in the community profiles found in Appendix 2 of the Plan. The information regarding options for future development that is included in each community's profile is useful for implementing wellhead protection plans as well as making other sourcing decisions.	25
<i>Incorporation of local information</i>		
37. The plan as it is fashioned sets forth a dynamic model, one that presumed to shift and change over time as situations require and more information becomes available. Simultaneously, many cities will be conducting their own analyses for use in their water supply planning efforts. These	The need for more site-specific data and the challenge of integrating local and regional datasets are recognized in Chapter 6. Currently, the best way to facilitate the incorporation of local data into regional analyses is through active workgroup participation by water suppliers and Council technical staff. Several workgroups are	37

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<p>local studies may be more precise and should be equally weighted within a regional water supply plan.</p>	<p>described in Chapter 6, including a technical workgroup convened by the Council.</p>	
<p>38. The information contained in the community profiles is regionally good but how does it and how will it take into consideration local studies?</p>	<p>Groundwater management is complicated by political boundaries. Site decisions are still expected to rely on local data. The Plan provides a framework to assess site-specific information from a regional perspective.</p>	12
<p>39. Shakopee would also like the Plan to reference the Aquifer Sustainability Study – Prairie du Chien – Jordan Aquifer done by SEH in July 2005.</p>		12
<p>40. Shakopee believes specific language should be included in the profile for Shakopee that a provision for current or future studies may find that they predict conditions identified in the profile that are unlikely to occur.</p>		
<p><i>Reasonableness of implementation of Profiles and Responses</i></p>		
<p>41. What if a community plans to increase appropriation but does not plan to use a source that is identified as having an issue on the community's profile? Does the community still have to address issues identified on its Community Profile?</p>	<p>Text will be added to the plan that explains that if a community is not planning to use a water supply source that has an issue associated with it, they would not expect to have to conduct the actions listed in the issue responses. Additionally, if existing efforts have demonstrated that use of a source will not result in the issue identified in the profile, this should be considered an appropriate</p>	10, 36
<p>42. How will communities be assured that</p>		12, 36

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<p>current efforts to use water sustainably will be acknowledged with the publication of the plan? Can the current efforts be added to the Profiles?</p>	<p>response if accepted by the DNR. There is benefit to leaving the issue on the community profiles, even if their plans are not likely to result in an impact, to inform other land use and appropriation decisions.</p>	
<p>43. What if a community does not plan to drill any more wells but the plan indicates that it will and identifies specific water supply issues, does the community have to address the issues?</p>		5, 10
<p>44. What if a community plans to use a source that is identified in the Community Profile as having an issue, but the issue with using that source is actually in a different part of the community than the proposed well? Can something be added to the issue response tables to acknowledge that the community may not have to address the issue?</p>		5, 10
<p>45. The second listed issue concerning potential impacts with state protected trout habitat or calcareous fens has been specifically addressed between the DNR and Shakopee.</p>		12
<p>46. Lakeville believes it is already addressing several of the issues identified in its Community Profile.</p>		36
<p>47. City has an approved wellhead protection plan by the Minnesota Department of Health, which identifies and addresses area vulnerable to contamination.</p>		36

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<p>48. The profile identifies potential impacts to the Seminary Fen and creeks with trout in the southwest corner of the community. The City of Chanhassen’s water comprehensive play does not intend to construct any municipal wells in this area. In June of 2007, a Seminary Fen Phase 2 Hydrologic Study was completed for the MnDOT TH 41 River Crossing. This report identified the recharge area for the en. The current or future City of Chanhassen wells are not close to this recharge area. Also, the creeks in this area have been impacted by development to the west. The Cities of Chaska and Chanhassen are planning to work with the DNR on a Stewardship Plan for the Seminary Fen and creeks in the future. We would encourage the Metropolitan Council to remove the Seminary Fen and creek impacts for the City of Chanhassen water profile sheet. If desired, we would suggest they be moved to another category that would just state protected natural resource areas in the community.</p>		39
<p><i>Community specific concerns</i></p>		
<p>49. The data and graph describing the water source data for Brooklyn Park in the Community Profiles is inaccurate. The data and graph should indicate that Brooklyn Park relies on the Quaternary aquifer for</p>	<p>The data supporting the community profiles was taken from the Minnesota Departments of Natural Resources and Health in 2007 and may be somewhat outdated depending on when the community last submitted data to those agencies.</p>	36

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<p>approximately 80% of its water supply. This is approximately 2.5 billion gallons per year.</p>	<p>The final draft of the plan will include 2008 data. If inconsistencies still exist, the community should work directly with the Minnesota Departments of Natural Resources and Department of Health to correct the information.</p> <p>Brooklyn Park’s community profile was corrected to reflect higher use of the Quaternary aquifer; a database glitch was responsible for the error.</p>	
<p>50. The well field that Maple Grove relies on is in the far east Maple Grove approximately four miles or less from the well field from which Brooklyn Park withdraws 2.5 billion gallons per year from the same formation. The impact of this water withdrawal are apparent in the disappearance of several Department of Natural Resources protected wetlands, in North and Central Brooklyn Park which is downstream from the these well fields. There is enough concern that the DNR has asked the City of Brooklyn Park to install monitoring wells near Lake Success and other wetlands to monitor what may be a catastrophic situation for many wetlands in Brooklyn Park that depend on groundwater to sustain them.</p>	<p>The Council will discuss the issue with the DNR to determine if Maple Grove’s community profile should be flagged for impacts to surface water resources. In addition, the Brooklyn Park community profile was edited to recognize documented declines in surface water features.</p>	<p>45</p>
<p>51. Under the available Future Water Supply Sources we do not agree with the statement that “The community is expected to continue relying on Minneapolis Water Works...” We would request that this be re-worded to say</p>	<p>The Master Plan will be changed to read “It is anticipated that the community will continue to rely on...”</p>	<p>5</p>

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<p>"The community is encouraged to continue relying on Minneapolis Water Works.</p>		
<p>52. While the Shakopee Mdewakanton Sioux Community is listed on Prior Lake's profile as a potential Interjurisdictional cooperative partner, the SMSC is not similarly listed on Shakopee's profile. So, it would seem reasonable to assume that any demand from tribal land holdings would not be served from Shakopee's system.</p>	<p>This is a misinterpretation of the interjurisdictional issue; interjurisdictional cooperation is listed as an <i>optional</i> source to meet future demand. Shakopee's community profile will be edited to recognize the SMSC as a potential interjurisdictional partner.</p>	<p>12</p>
<p>53. There is not a consistency with the future interjurisdictional cooperation between cities in their profiles. The cooperators for Shakopee (Prior Lake and Savage are not the same as Prior Lake (does not list Shakopee) and Savage (does not list either Shakopee or Prior Lake)</p>	<p>Community profiles will be edited to better reflect potential interjurisdictional partnerships.</p>	<p>12</p>
<p>54. The Plan should note that some of the demand in the region south of the Minnesota River is shifting to another source, the Kramer Quarry</p>	<p>The Plan recognizes that the Kramer Quarry will be a future water supply source to communities in the south metro. It is listed as an available source in Burnsville and Savage community profiles and the Metro Model 2 recognizes that dewatering wells will be turned off, reducing stress on the aquifer in that area.</p>	<p>36</p>
<p>Implementation of the Master Water Supply Plan</p>		
<p>General Comments</p>		

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55. Support the addition of a 'Frequently Asked Questions' document to help readers navigate and better understand the Plan.	The Metropolitan Council will include frequently asked questions about the Master Plan on its website when it publishes the Master Plan.	12, 20, 52
56. We encourage the Metropolitan Council to pursue the next steps described in Chapter 6 of the Master Plan. We realize that model predictions are not absolute and would promote further data collection and model updates to improve the accuracy of the model.	<p>The Council intends the planning process to be ongoing and dynamic so that improved predictions of supply availability and impacts can be conducted as more information and better tools to evaluate the information become available.</p> <p>Text within the Plan has been revised to ensure the tone of the Plan is consistent with this intention.</p>	25
57. We would like to see a Water Supply Workgroup established for Washington County (similar to the existing Northwest and Southwest Metro workgroups).	<p>Chapter 6 of the Plan discusses the value of and need for additional water supply work groups.</p> <p>Existing informal work groups have been a very productive forum for addressing water supply issues and promoting interjurisdictional cooperation. The Council supports the idea of creating a work group in the east metro area and will explore the idea with Washington County staff. The Woodbury/Afton Groundwater Technical Advisory Committee may be a good starting point for a water supply work group.</p>	25
<i>Agency Roles and Responsibilities</i>		
58. As the cities encounter issues, what is the Metropolitan Council's role in addressing	The Council will continue to collect information and update the regional data, model and analysis.	Public meeting

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<p>them? Who will determine if the community response is adequate?</p>	<p>The updated information will be made available as guidance to water appropriators, planners, the DNR and others with a stake in water and land use management. Determination of the adequacy of the response, however, will remain the purview of the DNR through the issuing of water appropriation permits.</p>	
<p>59. Are there any permitting requirements in this Plan, or does it only contain recommendations for commenting on Department of Natural Resources appropriation permits?</p>	<p>The plan contains recommended actions in the issue responses that are intended to provide guidance to the appropriators and DNR for making appropriation permitting decisions.</p>	<p>11</p>
<p>60. How will publication of the Master Plan affect appropriation request/updated water supply plans submitted prior to the publication and not yet approved by the DNR?</p>	<p>It is anticipated that the plan will provide more information that the DNR can use to review the water supply plans and appropriation permits. However, the Plan's issue responses are based on actions the DNR has required in the past in areas where quantity or surface water and groundwater interactions might occur. Therefore it is likely that the plan will not significantly change the outcome of most of the DNR decisions.</p>	<p>3</p>
<p><i>DNR 10 – year permit</i></p>		
<p>61. How does the 10-year permit relate to the Master Water Supply Plan?</p>	<p>The administration of appropriation permits will remain a responsibility of the DNR, which includes the approval of 10-year permits. This comment will be shared with the DNR. That being said the Metropolitan Council and the DNR anticipate an increase in the number of approved 10-year</p>	<p>44</p>
<p>62. Upon implementation of the Master Plan, the number of 10-year appropriations is likely to increase. Watersheds, neighboring</p>		<p>18</p>

Comment	Response	Commenter
<p>communities, and other groups currently have an opportunity to comment on the 10-year permit when it is applied for but often does not have an opportunity to comment again once the specific well location is determined. Can this Master Plan develop an approach that would provide groups to comment on new wells that have been pre-approved for the 10-year permit once the specific well location has been determined?</p>	<p>permit with Master Plan. The Master Plan identifies water supply issues communities may have to address when they plan to use a particular source and if they do so they will increase the likelihood that they will receive approval of the 10-year permit.</p>	
<p><i>When to address water supply issues</i></p>		
<p>63. The trigger requiring communities to address issues is an appropriate permit request, but when do communities without water supply systems start water supply impact analysis?</p>	<p>The actions are tied to the water appropriation permit. So, if a community never plans to develop a municipal system, they may never need to address the issue. However, non-municipal appropriators will also have to consider the issues raised on the community profiles when they request a permit from the DNR.</p> <p>Also, issues raised on community profiles should be considered in all future land use planning, including comprehensive plan development, zoning, and watershed plans. This integration of water supply planning into local and regional land use planning is a core principle of the Master Plan.</p> <p>Text will be added to Chapter 4 to clarify how issues identified on community profiles should be addressed, and by whom.</p>	<p>57</p>

Comment	Response	Commenter
<i>Updating and Expanding Metro Model 2 Analyses</i>		
64. We like the idea of having multiple realizations of Metro Model 2 final input set.	The Metro Model 2 is being recalibrated and re-run using multiple realizations to better illustrate parameter sensitivity and model uncertainty.	40, 46
65. Aquifer storage recover (ASR) wells should be studied by the governing agencies to see if these wells could reduce local aquifer drawdown.	Minnesota rule (4725.2050) generally prohibits the use of injection wells, an integral part of aquifer storage recovery projects. Therefore, ASR was not discussed in detail in the Plan. The Council does intend to continue assessing the pros and cons of ASR and may include more detail in updates of the Plan.	39
66. A categorical assessment of the model's strength's and weaknesses should be prepared by the model developers. There should also be an evaluation of future data collection needs.	A description of the Metro Model 2's strengths and weaknesses will be included in the Metro Model 2 technical report.	46
67. The first issue to be addressed for Shakopee is the predicted 50% head loss decline in the Jordan aquifer by 2030. This does not match with the maps in Appendix 1.	The Metro Model 2 is being recalibrated and re-run. The identification of water supply issues will be reviewed for each community, and corrected if necessary. The results will go out for public review a final time before the Plan is approved.	12
68. Heard of pending Department of Natural Resources program to collect water level data from municipalities through SCADA systems – When will data be available?	The Plan recognizes the value of municipal well water level data collected through SCADA systems in Chapter 6. Municipal water suppliers are encouraged to calibrate their SCADA systems,	6

Comment	Response	Commenter
<p>Long-term measurements of static water levels are an important part of this project.</p>	<p>collect this data, and submit it to the DNR for inclusion in their forthcoming database.</p>	
<p>69. There are opportunities for SCADA system owners to request changes from SCADA software companies to allow quick and easy download of digital data. This subject also highlights the need for water level logger calibration.</p>		41
<p>70. As discussed in Chapter 6, Groundwater Quality Data, the need to develop a regionally consistent map of groundwater contamination is discussed as an asset to guide development of water supplies across the region. Of concern in this section of the Plan is a statement found on page 6-11 that states "The Metropolitan Council will use the map for evaluating potential (water) sources and costs to meet long-term demands." While the development of such a map is supported, we question the assumption that the Metropolitan Council should involve themselves in the evaluation of source waters and associated costs to develop them. Between the regulatory agencies currently empowered to address this issue working with the local water suppliers and their consultants, those issues will be covered.</p>	<p>Chapter 6 will be revised to simply recommend that a regionally consistent map of groundwater contamination be developed and refer water supply planning staff to a template database developed by Dakota County in cooperation with the Council and Minnesota Department of Health.</p>	5
<p>71. Minnesota Geological Survey just renamed some of the aquifers in Minnesota to be</p>	<p>A discussion of this recent name change will be included in Chapter 3. The current iteration of this</p>	Public meeting

Comment	Response	Commenter
<p>consistent with Wisconsin nomenclature. How will the Metropolitan Council address this?</p>	<p>Plan, however, will refer to aquifers by the names currently used in Minnesota rules.</p>	
<p>72. The impacts of development on the recharge rates for the Quaternary aquifer are not included in the draft Plan. We recommend the Metropolitan Council look more closely at the effects of current and future water withdrawals from the Drift Valley formation of the Quaternary aquifer on the health of nearby wetlands and surface waters in Brooklyn Park and on the sustainability of the source of water for over 125,000 residents of Brooklyn Park and Maple Grove.</p>	<p>The Metropolitan Council agrees with this comment. Chapter 6, page 6-13, of the Master Plan states, "While accurate estimates of recharge are difficult to obtain, continuous collection of ample and accurate data regarding aquifer levels is essential because such measurements and resulting estimates of recharge are the foundation for evaluating the limit on groundwater supplies."</p> <p>The Master Plan goes on to state, "As more information on the Quaternary aquifer is collected, our understanding of groundwater recharge pathways will improve. Combined with other types of information such as land use and stream base flow, estimates using methods similar to the Soil Water Balance method is used for this Master Plan can be improved."</p>	45
<p>73. The impacts of development on the recharge rates for the Quaternary aquifer are not included in the draft Plan.</p>		45
<p>74. Encourage the Metropolitan Council to continue its efforts to better understand the recharge and sustainability of the region's aquifers.</p>		39
<p><i>Updating the Master Water Supply Plan</i></p>		
<p>75. What is the plan for updating the Master Plan? Will the data and model be periodically updated? Is there a timeline?</p>	<p>The Metropolitan Council will update the Master Water Supply Plan on the same schedule as it updates the metropolitan area regional framework. The regional framework is updated in conjunction with the decennial review of local</p>	Public meeting

Comment	Response	Commenter
	<p>comprehensive plans required under Minnesota Statutes, Section 473.864, and when the Council amends or modifies a metropolitan system plan. The Metropolitan Council will prepare and transmit to each affected local governmental unit a community water supply profile when the Council updates or revises the Master Water Supply Plan.</p> <p>At the same time, the planning process is intended to be dynamic so that as more information better tools to evaluate the information become available improved predictions of supply availability and impacts can be conducted. The results of ongoing analysis will be included in profiles revisions which will only be conducted with approval of the Metropolitan Council. Periodically the data sets and tools will be updated and made available for local evaluations. Text within the Plan will be revised to describe this process.</p> <p>Additional text will be added to Chapter 6 to better clarify the process for updating the Plan.</p>	
Training		
<p>76. After the Plan review period, will the Metropolitan Council provide seminars/training sessions for community public works and WMOs for using the GIS data?</p>	<p>The Metropolitan Council will consider providing training on the data and tools as part of its ongoing planning effort.</p>	<p>26</p>

Comment	Response	Commenter
Surface Water and Stormwater		
<p>77. This report is focused primarily on groundwater. However, of the approximately 2.5 million people in the seven county metropolitan area who obtain their drinking water from municipal systems, approximately 36% of them rely on the Mississippi River for their drinking water.</p>	<p>The Master Plan acknowledges this point in Chapter 3, but also acknowledges that there are greater uncertainties surrounding the use of groundwater, which is why the report focuses on groundwater analyses and availability.</p>	<p>8</p>
<p>78. The Plan correctly notes that because the Twin Cities lie above the aquifers that provide its public water supplies, the region has the ability and responsibility for managing much of its own water resource. However, with respect to the source water provided by the Mississippi River, just the opposite is true. The Mississippi River intakes for St. Paul and Minneapolis are both located outside the jurisdictions they serve. The quality of water arriving at the St. Paul and Minneapolis water intakes is to a large degree a function of decision-makers upstream of the Twin Cities, which have no authoritative control over its quality. Both these cities, along with the City of St. Cloud have voluntarily prepared Source Water Protection Plans, which include strategies for protecting their source water.</p>	<p>In cooperation with the USGS, the Metropolitan Council has initiated a study to assess the probability of low-flow conditions of the Mississippi River. The completion date for this project is August 2009. Once the project is completed, the Metropolitan Council will host a meeting with interested parties to present the findings and to discuss next steps.</p>	<p>8</p>
<p>79. The Plan should note that the anticipated</p>	<p>The Metropolitan Council agrees with this</p>	<p>8</p>

Comment	Response	Commenter
<p>population growth and development in the St. Cloud – Twin Cities growth corridor have potential to adversely influence the quality of surface and groundwater as well as increase demands on the resource.</p> <p>80. The impacts that population growth may have on groundwater resources in the St. Cloud to Twin Cities corridor should include an assessment of likely pumping centers caused by the limited groundwater availability in some areas.</p>	<p>comment and Chapter 3 of the Master Plan contains text raising this issue.</p> <p>The Metro Model 2 domain extends to the northwestern edge of the Mt. Simon-Hinckley aquifer to include pumping stressed on that aquifer by communities along the I-94 corridor outside the seven county metropolitan area.</p>	
<p>81. The Mississippi River and other surface waters in the region represent potential alternatives to groundwater in the event of future availability or quality problems that could limit or prevent the use of certain aquifers.</p>	<p>The Metropolitan Council agrees with this comment and Chapter 3, beginning on page 3-6, of the Master Plan contains text raising this issue. In addition, all communities adjacent to the Mississippi and St. Croix rivers were identified as having surface water as an available future water supply source on their community profiles.</p>	8
<p>82. Using the Mississippi River or the St. Croix River for community water supply should be integrated into future water supply planning efforts by the Metropolitan Council.</p>		8
<p>83. The Mississippi River and groundwater are interconnected throughout the metropolitan area. Increasing water supply from wells that are located within a mile or two of the Mississippi River must be evaluated relative to impacts on base flow to the river.</p>	<p>The Metropolitan Council acknowledges that surface water and groundwater are all part of one system in Chapter 3, page 3-16, of the Master Plan contains text raising this issue.</p> <p>In addition, the Metro Model 2 was designed to recognize the potential for interaction between surface and groundwater resources. However, the</p>	8

Comment	Response	Commenter
	<p>model calibration process highlighted the need for additional baseflow data before accurate predictions can be made regarding impacts of pumping on Mississippi River baseflow. If this data is collected, it can be incorporated into the structure of the Metro Model 2.</p>	
<p>84. The Master Plan should outline best management practices for alternative water supply options such as interjurisdictional cooperation, stormwater infiltration, etc.</p> <p>85. The Master Plan should recognize the connection between stormwater best management practices and groundwater quality and quantity. Given the mapping of contaminated groundwater, soils, and pollution sensitivities that has been done and further refined with time, watershed districts/WMO rules and enforcement can play an equal, if not more significant role in safe long term drinking water conservation.</p>	<p>Chapter 3 of the Plan briefly discusses the impact of stormwater infiltration on groundwater quality and quantity (see page 3-18 of the Master Plan Public Review Draft). Additional links to stormwater BMP documents developed by the Metropolitan Council and state agencies will be added to the plan in order to provide readers with links to more information on the subject.</p> <p>As part of ongoing planning, the Metropolitan Council intends to meet with groups (WMOs, counties, state agencies, etc.) that have been studying stormwater BMPs to increase the understanding on the subject and help bridge the connection between stormwater BMPS and groundwater. The conservation toolbox may be an appropriate way to convey information on stormwater management to a broader audience.</p>	<p>26, 36</p>
<p>86. The Rice Creek Watershed District has moved to a two year event (2.8") treatment/storage/infiltration pre-runoff minimum capacity for new developments and large redevelopments. A Metro area-wide adoption of like Rules is suggested.</p>		<p>26</p>
<p>87. Do maps of contaminated soils exist to inform infiltration requirements?</p>	<p>No regional map of contaminated soils exists to inform infiltration requirements. A pilot project,</p>	<p>Carl Johnson?</p>

Comment

Response

Commenter

	<p>conducted by Dakota County for the Council, resulted in a GIS database template for groundwater contamination mapping. The structure of this database may be a good starting point for soil contamination mapping.</p>	
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Commenters Master Water Supply Plan DRAFT (November 3, 2008 through December 16, 2008)

Number	First Name	Last Name	Organization	Method
1	Yasser	Abou Aish		Public meeting
2	Joseph	Adams	Shakapee Public Utilities	Public meeting
3	Steve	Albrecht	City of Prior Lake	Public meeting
4	Jeff	Berg	Department of Natural Resources	Public meeting
5	Mark	Bernhardson	City of Bloomington	Letter
6	Bart	Biernat	Anoka County	Public meeting/Letter
7	BJ	Bonin	WSB	Public meeting
8	David	Brostrom	Upper Mississippi River Source Water Protection Project	Letter
9	Dave	Brown	Advanced Engineering	Public meeting
10	Robert	Cockriel	City of Bloomington	Public meeting
11	Tom	Colbert	City of Eagan	Public meeting
12	John	Crooks	Shakapee Public Utilities	Public meeting/Letter
13	Kevin	Crooks	City of Chanhassen	Public meeting
14	Kate	Drewry	Department of Natural Resources	Public meeting
15	Julie	Ekman	Department of Natural Resources	Public meeting
16	Dan	Faulkner	Bolton and Menk on behalf of the City of Mound	Letter
17	Dick	Foster	Bonestroo	Public meeting
18	John	Freitag	Washington County	Public meeting
19	Scott	Fronek	Black and Veatch Cooperation	Public meeting
20	Tom	Furlong	Metropolitan Area Water Supply Advisory Committee, Mayor of Chanhassen	Public meeting
21	Paul	Gardner	MN House of Representatives	Public meeting
22	Todd	Gerhardt	City of Chanhassen	Public meeting
23	Jack	Gleason	Department of Natural Resources	Public meeting
24	Dennis	Hegberg	Washington County, Washington County Board of Commissioners, Chari	Letter
25	David	Jessep	City of Woodbury	Public meeting
26	Carl	Johnson	TLHA	Public meeting
27	Carl	Johnson	Shoreview Green Comm	Public meeting
28	Chad	Kolstad	Drinking Water Protection	Public meeting
29	Adam	Kramer	PCE	Public meeting
30	Sheila	Krohse	Bolton and Menk on behalf of the City of New Gernmany	Letter
31	Brian	LeMon	Barr Engineering	Public meeting

Commenters Master Water Supply Plan DRAFT (November 3, 2008 through December 16, 2008)

Number	First Name	Last Name	Organization	Method
32	Linda	Loomis	Metropolitan Area Water Supply Advisory Committee, Mayor of Golden Valley	Public meeting
33	David	Martini	Bolton and Menk on behalf of the City of Mayer and Watertown	Letter
34	Grant	Meyer	AE2s	Public meeting
35	Janell	Miersch	Department of Natural Resources	Public meeting
36	Keith	Nelson	City of Lakeville	Public meeting/Letter
37	Patricia	Nauman	Metro Cities	Public meeting/Letter
38	Kathy	Nielsen	Spring Lake TWP	Public meeting
39	Paul	Oehme	City of Chanhassen	Public meeting/Letter
40	Bill	Olsen	Dakota County	Public meeting/Letter
41	Christopher	Petree	City of Lakeville	Public meeting
42	Laurel	Reeves	Department of Natural Resources	Public meeting
43	Shahin	Rezania	Minneapolis Waterworks	Public meeting
44	Jeremy	Rivord	Department of Natural Resources	Public meeting
45	John	Roach	Lake Success Lake Association, President	Email
46	Steve	Robertson	Minnesota Department of Health	Email
47	Jim	Sadler	City of Maple Grove	Public meeting
48	Paul	Saffert	Bolton and Menk	Public meeting
49	Jake	Saulsbury	Bolton and Menk on behafe of the City of Cologne, Norwood Young America, St. Bonifacius, and Waconia	Letter
50	Steve	Schneider	Metropolitan Area Water Supply Advisory Committee, St. Paul Regional Water Services	Public meeting
51	Wayne	Schwartz	City of Eagan	Public meeting
52	Barry	Stock	Metropolitan Area Water Supply Advisory Committee, City of Savage	Public meeting
53	Pat	Sweeny	Freshwater Society	Public meeting
54	Lou	Van Hout	City of Shakopee	Public meeting
55	Harlan	Van Wyhe	City of Maple Grove	Public meeting
56	Princesa	VanBuren	Environmental Quality Board	Public meeting
57	Mark	Wallis	Bonestroo	Public meeting
58	Craig	Wills	Department of Natural Resources	Public meeting