The Madison 50-Year Master Planning public involvement included two phases: Phase I – Educate and Inform Stakeholders Early in the Process and Phase II – Update Stakeholders on Progress and Preliminary Findings. This memorandum provides a summary of the Phase I and Phase II public involvement efforts conducted with interested communities and agencies.

PHASE I – EDUCATE AND INFORM STAKEHOLDERS EARLY IN THE PROCESS

Phase I efforts included the development and distribution of an educational “fact sheet” and questionnaire, compilation of the questionnaire responses, and presentations of the master planning process and elements to numerous audiences.

Fact Sheet and Questionnaire

A two-sided color fact sheet was developed to summarize some of the key concepts of the master planning process. In particular, the fact sheet was designed to educate the audience with respect to some important statistics and history of MMSD and introduce some key issues that MMSD will need to address over the next 50 years. These key issues include the impacts of wastewater effluent diversion around the Madison Lakes on surface water and groundwater resources, as well as potential wastewater reuse concepts. A copy of the fact sheet is included in the appendix of this memorandum.

The questionnaire was mailed to the public works committee, utilities committee (or commission) or governing body, the administrative and management staff of each of MMSD’s customer communities. It was also mailed to the City of Sun Prairie, City of Stoughton, and Village of Oregon. In addition, the questionnaire was mailed to the Dane County Lakes and Watershed Commission, the Capital Area Regional Planning Commission, and approximately 40 environmental advocacy groups that are active in the Madison area. Approximately 260 questionnaires were mailed. A copy of the questionnaire is included in the appendix of this memorandum.

MMSD also posted the questionnaire on its Web site and invited interested parties to complete the form on-line. MMSD developed a summary of the questionnaire response statistics and comments made by the respondents and distributed that summary to the Master Planning Advisory Committee in a March 14, 2008, memorandum.

Summary of Presentations

Fourteen presentations were made by District staff during the months of February, March, and April of 2008. The presentations and following discussion typically lasted from 20 minutes to one hour, depending on the number of questions and comments received. Presentations were made to the following audiences on the indicated dates:

1. February 19, 2008–City of Verona Public Works Committee
2. February 20, 2008–City of Middleton Water Resources Committee
3. February 28, 2008–Village of DeForest Public Works Committee
4. March 11, 2008–Village of McFarland Public Utilities Committee
5. March 13, 2008–Dane County Lakes and Watershed Commission
7. March 17, 2008—City of Fitchburg Public Works Committee
8. March 25, 2008—Town of Blooming Grove Board
9. March 26, 2008—City of Madison Board of Public Works
10. March 27, 2008—Capital Area Regional Planning Commission
11. March 31, 2008—Village of Waunakee Utilities Commission
12. April 1, 2008—City of Sun Prairie Committee of the Whole
13. April 21, 2008—Village of Shorewood Hills Village Board
14. April 29, 2008—Village of Maple Bluff Public Works Committee

All comments and questions were noted at each of the meetings, as were the responses to any questions. A summary of comments and questions was developed for each of the presentations.

Presentation Responses – Common Themes and Comments

While each presentation resulted in a unique set of comments and questions, there were a few common themes that came up during the discussions following many of the presentations. A listing of these common themes follows:

1. Many of the audiences were very familiar with the water resources issues in Dane County. It is noted that the audiences are likely more knowledgeable with respect to water resources issues than the general public.

2. MMSD’s customers are supportive of the master planning process and would like to see MMSD investigate wastewater reuse alternatives. Many commented that new subdivisions could start requiring that wastewater reuse infrastructure be constructed with other utilities.

3. Groundwater depletion seems to be more of a concern than low flows in surface waters, although these are directly related to each other in some locations.

4. Other areas of the country, especially in the south and west, are already reusing treated wastewater.

5. Water conservation was brought up at several presentations.

6. The potential risk of pharmaceuticals in the environment is a concern.

7. The question of how to pay for wastewater reuse infrastructure, as well as potential satellite WWTPs, was asked at several of the presentations.
Potentially New Concepts

One of the purposes of the public presentations and questionnaires was to determine if there were concepts and ideas that MMSD hasn’t considered yet but should include as part of the master planning process. The following list summarizes new concepts and issues obtained through this effort:

1. As part of the master planning’s evaluation of stream augmentation, Black Earth Creek in the Wisconsin River Basin could be included (Middleton Water Resources, February 20).

2. The concept of collaborating with the Madison Water Utility and other local utilities to address water conservation measures was discussed (Madison COE, March 17).

3. MMSD should actively promote water conservation measures to delay expenditures for infrastructure that would otherwise be required to address population growth (Waunakee Utilities, March 31).

PHASE II – UPDATE STAKEHOLDERS ON PROGRESS AND PRELIMINARY FINDINGS

Phase II efforts included the development and distribution of the project status including the tasks accomplished, preliminary findings, project direction, and public informational meetings and workshops with the stakeholders.

Summary of Presentations

Twenty-one presentations were made by District staff from June to October of 2009. Presentations were made to the following audiences on the indicated dates:

1. June 15, 2009–City of Stoughton Utilities
2. June 23, 2009–Blooming Grove Town Board
4. June 30, 2009–Village of DeForest
5. July 1, 2009–Village of Cottage Grove Public Works
6. July 2, 2009–Wisconsin Department of Natural Resources
7. July 6, 2009–City of Fitchburg
9. July 8, 2009–Madison Board of Public Works
10. July 9, 2009–Capital Area Regional Planning Commission
11. July 13, 2009–Upper Sugar River Watershed Association (presentation at a USRWA meeting)
16. August 12, 2009–City of Verona Public Works Committee
17. August 19, 2009–City of Middleton Water Resources Committee
18. August 22, 2009–Upper Sugar River Watershed Association (presentation at a USWRA canoeing function)
19. August 24, 2009–Village of Oregon Public Works Committee
20. October 6, 2009–City Sun Prairie Public Works Committee
21. October 8, 2009–Dane County Lakes and Watershed Commission

Attendance at these meetings was generally in the range of five to ten people. This allowed for very good interaction with the audience, and overall the information was well-received.
History
MMSD was formed in 1930. The Nine Springs Wastewater Treatment Plant was actually constructed two years earlier by the City of Madison, and some of the original structures are still in use today! Since that time the plant has undergone several expansions and upgrades to meet the needs of the growing metropolitan area and more stringent environmental standards.

MMSD treats wastewater from 5 cities, 7 villages, and 29 towns and sanitary districts in Dane County. MMSD serves a population of about 330,000, as well as the industries, businesses, and institutions within those communities. On a typical day, the plant receives and treats more than 40 million gallons. This amounts to about 120 gallons per day per person!

Typical Monthly Costs of Services

MMSD wastewater treatment costs compare favorably to the average cost of wastewater services in Wisconsin (see chart, yellow bars), as well as other typical charges paid by our residents for conveniences. The bar chart shows that our wastewater treatment is an excellent value.

www.madsewer.org
Regional Water Considerations

Water Balance
MMSD treats an average of about 40 million gallons of wastewater every day. Most of this water comes from groundwater wells within the Yahara River Watershed. Because of a state law passed in 1949, MMSD discontinued the discharge of treated wastewater to the Madison Lakes system and began pumping treated wastewater around the Madison Lakes to Badfish Creek east of Oregon, which then flows to the Yahara River south of Lake Kegonsa. This water diversion around the Madison Lakes was needed to protect the Madison Lakes in the mid 1900s. However, a lot has changed since then, including:

- Wastewater treatment technologies have significantly improved, and today’s highly treated effluent is much higher quality than was produced when the diversion began.
- Water quality regulations have consistently increased the level of treatment required.
- Water flows through the Madison Lakes, the upper Yahara River, and contributing streams have decreased, partly because of the diversion of water around the lakes.
- Growth in Dane County has resulted in decreasing groundwater recharge opportunities.

Almost 40,000,000 gallons of water per day are transferred out of the upper Yahara River Watershed into Badfish Creek.

Water Quality
MMSD’s highly treated wastewater is extremely clean, and MMSD is committed to efficiently maintaining high water quality standards as we discharge into our streams and waterbodies. The Nine Springs treatment plant uses biological processes to treat the wastewater to levels that allow it to be discharged to Badfish Creek and most other waters of the state. However, to discharge into the upper Yahara River system or the Madison Lakes, even better treatment would be required, which would increase treatment costs and user rates.

Groundwater/Water Resources
Communities in the Madison area obtain all of their water needs from groundwater wells. The Madison metropolitan area is one of the nation’s largest areas that relies solely on groundwater rather than surface water for our drinking water and other water needs. Because of our heavy reliance on groundwater, Dane County’s water table has been steadily dropping (see graphic below), to the point that it has become a significant concern among regional planners and utilities. The fact that groundwater drawn from the upper Yahara River basin is transferred downstream to Badfish Creek reduces groundwater recharge opportunities in the Madison Lakes area.

Reusing highly treated wastewater could help this problem in two ways: (1) Reuse would decrease the amount of groundwater needed for non-drinking water uses, and (2) reuse would provide more opportunities for groundwater recharge within Madison area. Several highly treated wastewater reuse strategies could be considered, including:

- Agricultural irrigation
- Golf course irrigation
- Lawn watering
- Stream flow augmentation
- Wetlands restoration
- Industrial cooling water

Brown trout from Badfish Creek
Madison Metropolitan Sewerage District
50-Year Master Plan Questionnaire
January 2008

MMSD requests your input with helping prepare its 50-Year Master Plan. The enclosed fact sheet labeled “Regional Water Considerations” provides background information that you may find useful in answering the following questions. Please return your completed questionnaire to MMSD using the enclosed envelop, or fax it to Jon Schellpfeffer at 608/222-2703 by February 29, 2008. You may also complete this survey on-line at www.madsewer.org. Thank you for your help!

1. Reusing highly treated wastewater could help alleviate a declining groundwater supply in two ways. First, reuse through such options as agricultural irrigation, golf course irrigation, lawn watering, or wetlands restoration could provide more opportunities for groundwater recharge within the Upper Yahara River Basin. Second, reuse for industrial purposes such as cooling water, could decrease the amount of groundwater needed for these types of non-drinking uses. Do you support the concept of implementing reuse strategies for highly treated wastewater that would help alleviate declining groundwater supplies?

- ☐ 1 Yes
- ☐ 2 No
- ☐ 3 No Opinion

1a. What are your reasons for this answer? ____________________________________________________
____________________________________________________________________________________

2. On a scale where 1 = Not At All Acceptable and 5 = Very Acceptable, please rate the following potential uses for highly treated wastewater.

<table>
<thead>
<tr>
<th>Usage</th>
<th>Not At All</th>
<th>Very</th>
<th>No Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Agricultural irrigation</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
</tr>
<tr>
<td>b. Golf course irrigation</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
</tr>
<tr>
<td>c. Lawn watering</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
</tr>
<tr>
<td>d. Wetlands restoration</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
</tr>
<tr>
<td>e. Increasing stream flows</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
</tr>
<tr>
<td>f. Industrial cooling water</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 3</td>
</tr>
</tbody>
</table>

2a. What other uses of treated wastewater would be acceptable to you? _____________________________
____________________________________________________________________________________

3. MMSD will investigate the feasibility of distributing highly treated wastewater into the Upper Yahara River, its tributary streams and wetlands, or the Madison lakes. Do you support the concept of transferring highly treated wastewater to these areas, which would reduce the amount of treated wastewater now being diverted to Badfish Creek and the Lower Yahara River Basin?

- ☐ 1 Yes
- ☐ 2 No
- ☐ 3 No Opinion

3a. What are your reasons for this answer?_________________________________________________
________________________________________________________________________________

4. Implementing new water reuse actions will require considerable infrastructure investment, which would have a direct impact on sewer rates charged by MMSD. Measurable benefits may include reduced groundwater pumping, improved stream flows during dry periods, fewer algae blooms on lakes, and conservation of a natural resource. The current average cost for sewer services is about $16 per month for a typical residential user. Which of the following amounts would you consider a reasonable additional monthly cost per household to achieve these results through new infrastructure investment?

- ☐ 1 $0/mo.
- ☐ 2 $5/mo.
- ☐ 3 $10/mo.
- ☐ 4 $15/mo.
- ☐ 5 more than $15/mo.
- ☐ 6 No Opinion

4a. What are your reasons for this answer? ______________________________________________
______________________________________________________________________________