

**MINUTES OF THE EIGHTEENTH MEETING
SEWRPC REGIONAL WATER SUPPLY PLANNING ADVISORY COMMITTEE**

DATE: May 20, 2008

TIME: 9:00 a.m.

PLACE: Lower Level Conference Room
Regional Planning Commission Offices
W239 N1812 Rockwood Drive
Waukesha, Wisconsin

MEMBERS PRESENT

Kurt W. Bauer, Chairman	Executive Director Emeritus, SEWRPC
Robert P. Biebel, Secretary	Special Projects Environmental Engineer, SEWRPC
Kenneth R. Bradbury	Hydrogeologist/Professor, Wisconsin Geological and Natural History Survey
Douglas S. Cherkauer	Professor of Hydrogeology, University of Wisconsin-Milwaukee
Michael P. Cotter	Director, Walworth County Land Use and Resource Management Department
Charles A. Czarkowski	Regional Water Program Expert, Wisconsin Department of Natural Resources, Southeast Region
Daniel S. Duchniak	General Manager, Waukesha Water Utility, City of Waukesha
Charles P. Dunning	Hydrologist, U.S. Geological Survey
Franklyn A. Ericson	Manager, Environmental Operations & Central Services, S.C. Johnson & Son, Inc.
Thomas M. Grisa	Director of Public Works, City of Brookfield
Jeffrey A. Helmuth	Hydrogeologist Program Coordinator, Wisconsin Department of Natural Resources, Madison
Andrew A. Holschbach	Director, Ozaukee County Planning, Resources, and Land Management Department
Eric J. Kiefer	Manager, North Shore Water Commission
J. Scott Mathie	Director of Government Affairs, Metropolitan Builders Association of Greater Milwaukee
George E. Melcher	Director, Kenosha County Department of Planning and Development
Paul E. Mueller	Administrator, Washington County Planning and Parks Department
Jeffrey Musche	Administrator/Clerk, Town of Lisbon
Michael P. Rau	General Manager, We Energies-Water Services
Edward St. Peter	General Manager, Water Utility, City of Kenosha
Dale R. Shaver	Director, Waukesha County Department of Parks and Land Use
James Surfus	Senior Environmental Engineer, Miller Brewing Company
Steven N. Yttri	General Manager, Water and Sewer Utility, City of Oak Creek

MEMBERS EXCUSED OR OTHERWISE ABSENT

Julie A. Anderson	Director, Racine County Division of Planning and Development
Thomas J. Bunker	Representative, Water and Wastewater Utility, City of Racine
Lisa Conley	Representative, Town and Country Resource Conservation and Development, Inc.
David Ewig	Water Superintendent, City of Port Washington

Terrence H. Kiekhaefer	Director of Public Works, City of West Bend
Mark Lurvey	Agricultural Business Operator
Thomas J. Krueger	Water and Wastewater Utility Director, Village of Grafton
Carrie M. Lewis	Superintendent, Milwaukee Water Works, City of Milwaukee
George A. Torres	Director, Milwaukee County Department of Transportation & Public Works
Daniel S. Winkler	Director of Public Works and Utilities, City of Lake Geneva

GUESTS

Daniel R. Butler	Engineer, Ruckert & Mielke, Inc.
Katherine Den Boer	Summer Intern, Division of Water, Compliance & Consumer Affairs, Public Service Commission
Paul G. Hayes	Mid Kettle Moraine Partners Group
Jeffrey J. Ripp	Water Conservation Coordinator, Division of Water, Compliance & Consumer Affairs, Public Service Commission of Wisconsin
James Rowen	Concerned Citizen
Steven H. Schultz	Department Head, Water Supply and Wastewater Treatment, Ruckert & Mielke, Inc.
Ben W. Wood	Engineer, Strand Associates, Inc.

STAFF

Joseph E. Boxhorn	Senior Planner, Southeastern Wisconsin Regional Planning Commission
Kenneth R. Yunker	Deputy Director, Southeastern Wisconsin Regional Planning Commission

CALL TO ORDER AND ROLL CALL

Chairman Bauer called the meeting to order at 9:00 a.m. Roll call was taken by circulating an attendance signature sheet, and a quorum declared present. Chairman Bauer then introduced Mr. J. Scott Mathie, Director of Government Affairs for the Metropolitan Builders Association of Greater Milwaukee. Chairman Bauer indicated that Mr. Mathie would now be representing the Metropolitan Builders Association on the Committee, replacing Mr. Matthew Moroney who has resigned his position with the Association. Chairman Bauer welcomed Mr. Mathie to the Committee.

Chairman Bauer then indicated that he was proposing to change the order of the agenda items for this meeting by moving the item "Other Business" ahead of the item "Consideration of Date and Time of Next Meeting." He indicated that he recommended this change as there was correspondence to be considered under "Other Business." The Committee concurred on the agenda change.

CONSIDERATION OF MINUTES OF THE MEETING OF FEBRUARY 19, 2008

Chairman Bauer noted that copies of the minutes of the February 19, 2008, meeting of the Committee had been provided to all members of the Committee for review prior to the meeting, and asked that the Committee consider approval of those minutes.

Chairman Bauer reminded the Committee members that all of the revisions which the Committee directed to be made in the materials reviewed at that meeting were intended to be fully documented in the minutes, or in attachments thereto. He noted that approval of the minutes would constitute approval of the SEWRPC staff memorandum entitled "Conceptual Framework for Existing and Future Condition Alternative Plans to Be Considered Under the Regional Water Supply Planning Program for Southeastern Wisconsin, Revised March 25,

2008;” the first portion of Chapter VIII, “Alternative Plans: Description and Evaluation,” pages 1 through 18; Appendix I, “Methodology for Analyzing Water Supply System Capacities and for Developing System-Level Alternative Plans,” revised March 25, 2008; and SEWRPC Technical Report No. 47, *Groundwater Recharge in Southeastern Wisconsin Estimated By a GIS-Based Water-Balance Model*, as prepared by the Wisconsin Geological and Natural History Survey staff. He noted that revised copies of all of these documents accompanied the minutes and that the approvals would be subject to any comments received today on the minutes and the attachments thereto.

Mr. Yttri indicated that he continued to disagree with the manner in which the operation and maintenance costs for existing facilities were being dealt with in the alternative plans in Chapter VIII. He asked if this disagreement should be raised as part of the minutes or during the Chapter VIII review. Chairman Bauer indicated that this issue should and would be discussed during the scheduled further review of Chapter VIII.

There being no corrections or additions, the minutes of the meeting of February 19, 2008, were approved as presented on a motion by Mr. Melcher, seconded by Mr. Grisa, and carried unanimously.

CONSIDERATION OF PORTION OF CHAPTER VIII, “ALTERNATIVE PLANS: DESCRIPTION AND EVALUATION,” ON PAGES 18 THROUGH 42 COVERING ALTERNATIVE PLANS 2 AND 3 AND AN INTRODUCTION TO ALTERNATIVE PLAN 4

Chairman Bauer then asked the Committee to consider Agenda Item 3. He noted that all Committee members had received a copy of the portion of Chapter VIII, “Alternative Plans: Description and Evaluation,” concerned for review prior to the meeting. He noted that the portion of Chapter VIII covering the introductory text and of the first alternative plan description and impact analysis had been reviewed at the November 27, 2007, meeting. He indicated that the materials to be reviewed at this meeting covered the plan description and plan surface and groundwater impact analyses of Alternative Plans 2 and 3, as well as an introduction to Alternative Plan 4.

Chairman Bauer then asked Mr. Biebel to review the portions of Chapter VIII concerned on a page-by-page basis. The following comments were made, questions asked, and actions taken during the review.

Mr. Biebel reported that Ms. Conley was unable to attend today’s meeting. However, she had presented written comments and a copy of those comments had been distributed to all Committee members in attendance. He noted that Ms. Conley’s comments on the first page and on the top of the second page related to comparison of the alternative plans. He indicated that those comments would be addressed in the presentation on this agenda item. He noted further that he would raise the other specific comments on Chapter VIII as they appear in the chapter.

[Secretary’s Note: A copy of Ms. Conley’s comments are attached hereto as Exhibit A.]

Mr. Grisa referred to Map VIII-1, noting that the central New Berlin area should be color-coded light blue rather than dark blue. This correction was noted.

Mr. Grisa referred to Map VIII-1 and Table VIII-12, noting that there were facilities for connecting eastern Brookfield and Elm Grove to the Wauwatosa water supply system included in this alternative. He asked if the alternative included costs for upgrading the Wauwatosa water supply system over-and-above the facilities needed to serve those two communities. Mr. Biebel indicated that the facilities included were those estimated to be needed to provide service to Brookfield and Elm Grove. Mr. Schultz added that, when available, local plans had been used to identify the needed facilities.

Dr. Cherkauer suggested that there be an addition made to the text of each alternative plan that described the changes in the amounts of water supplied from each of the sources. The Committee concurred by consensus.

[Secretary’s Note: In order to quantify pumpage from the various sources under each alternative plan, the text for describing each alternative has been expanded on pages 12, 21, 22, and

37 to include text and bulleted summary items covering this topic. The revised text is included in the revised version of Chapter VIII provided with these minutes.]

Mr. Grisa asked if the added information would include information on the remaining unused capacity of the Milwaukee Water Works treatment capacities. Chairman Bauer recommended that such information not be included in the text under consideration, as that information could be more appropriately be provided in the text presenting the findings of the comparative evaluations of the alternatives considered, as well as in the description of the recommended plan.

Dr. Cherkauer indicated that the text and supporting tables and maps describing the groundwater and surface water impacts related to the shallow aquifer placed an unintended emphasis on the groundwater levels and lesser emphasis on the changes in baseflow to the surface water system. He indicated that was, in part, because of the order of the presentation. He noted that the shallow aquifer drawdown was less important than the surface water impacts because the changes in surface water baseflow buffered the changes in the water table. He noted further that the major changes in the shallow aquifer water levels were in the partially confined Silurian dolomite portion of the aquifer. He indicated that in an unconfined aquifer the water level changes would typically always be minimal.

Chairman Bauer observed that Dr. Cherkauer's comments were very important and that they would have an impact on how the comparative evaluation of the alternatives was carried out. Dr. Cherkauer agreed that it would be good to consider the input as part of the comparative evaluation, but also recommended that the text in Chapter VIII be rearranged to emphasize the baseflow reduction factors, rather than the shallow aquifer water table factors. Mr. Biebel indicated that the rearrangement would be a significant work effort that would change map and table numbers as well as related text. Dr. Dunning agreed with Dr. Cherkauer noting that the order of the presentation often implies a priority and he recommended a rearrangement of the text.

After further discussion, it was agreed by consensus that the text on the groundwater and surface water impacts of the alternative plans be rearranged so as to initially present the description of impacts on the deep aquifer, then the impacts on the surface waters, and then on impacts on the shallow aquifer water tables.

[Secretary's Note: The text on the groundwater and surface water impacts of the alternative plans has been revised by reordering the topics. The revised text is included in the revised version of Chapter VIII provided with these minutes.]

Mr. Grisa referred to Map VIII-12 which indicated that significant drawups could be anticipated in the deep aquifer under Alternative Plan 2. He asked if there were any expected groundwater quality impacts associated with that alternative. Mr. Biebel replied that such impacts were not expected since the alternative would return the water levels to some historic level. Mr. Duchniak indicated that, based upon his discussions with Mr. Lee Boushon of the Wisconsin Department of Natural Resources staff, there could be some negative water quality impacts potentially related to the introduction of oxygen into the aquifer.

Mr. Biebel indicated that the deep aquifer has, to date, largely remained saturated, and, thus, no such major impacts would be expected. Dr. Dunning asked if water quality impacts might be related to arsenic. Dr. Cherkauer indicated that similar drawups had been experienced in northeastern Illinois and knowledge of the experience there could be useful. After further discussion, it was agreed that the staff would investigate this issue further.

[Secretary's Note: The issue of potential water quality impacts in the deep sandstone aquifer was discussed by the staff with Mr. Lee Boushon of the Wisconsin Department of Natural Resources. Mr. Boushon indicated that there were cases where arsenic had been released once certain aquifers were exposed to air. However, if the aquifer remained saturated, such impacts should not occur. The groundwater modeling program as documented in Chapter VIII and in SEWRPC Technical Report No. 41 indicates that there may be, under some conditions, locally unsaturated areas in the upper layers of

the deep sand stone aquifer. Such areas would be relatively small and limited to central Waukesha County. This condition would have to be verified by more detailed modeling. However, given the limited area involved, and that the condition, if it existed at all, would affect only in the upper layers of the aquifer, it is unlikely to be a major consideration in the evaluation of the alternative plans. However, if this phenomenon was potentially associated with the recommended plan, the issue would have to be considered in the description of the recommended plan.]

Mr. Grisa referred to Maps VIII-13 and VIII-14 and asked what the significance was of the hatching illustrating the streams which received discharges of wastewater treatment plant effluent. Mr. Biebel responded that the hatching overlay was provided to indicate those streams where a reduction in groundwater-derived baseflow would be less important from a streamflow perspective, because of the contribution of treated effluent.

Dr. Cherkauer noted that there were significant increases in the reaches of streams exhibiting baseflow depletion in the Delavan and Elkhorn area when comparing Alternative Plan 2 on Map VIII-13 to Alternative Plan 1 on Map VIII-5 and asked what the reason for this might be. Mr. Biebel responded that there was a shift in use from deep to shallow aquifer wells proposed for the Elkhorn Water Utility.

Dr. Bradbury noted that the maps that illustrated the baseflow depletion do not show where there are baseflow increases. He indicated that such an addition to the maps could be useful. Mr. Biebel indicated that the groundwater/surface water modeling work did not include stream augmentation as an initial output. He indicated he would investigate what would be required to provide that supplementary information. Chairman Bauer indicated that such baseflow augmentation constituted important information.

[Secretary's Note: The maps illustrating stream reaches with baseflow impacts have been expanded to show both baseflow depletion and baseflow augmentation. The revised maps are included in the revised version of Chapter VIII transmitted with these minutes.]

Mr. Dunning recommended that the limitations of the modeling be carefully documented where specific information, such as stream reaches emergency depletion or augmentation is presented. Mr. Biebel agreed that documentation of the model limitations should be included. However, he indicated that the documentation should be included in the section of Chapter VIII generally describing the analytic procedures in the beginning of the chapter, rather than for that information be repeated under description of the impacts of each alternative plan. He indicated that such information had already been included to some extent. Chairman Bauer noted that the model was thoroughly described and its limitations noted in a separate technical report. After further discussion, it was agreed to that the staff should review the text to determine if the limitations of the modeling were adequately documented.

[Secretary's Note: A review of the text of Chapter VIII under the section entitled "Evaluation of Environmental and Other Impacts," on pages 8 through 10 indicates that the model limitations relating both to groundwater levels and to baseflow reductions were presented. In order to emphasize the model limitations with regard to simulation of surface water baseflow changes associated with each of the alternative plans, a footnote has been included on each of the revised maps repeating the model limitations with respect to site-specific interpretations. The maps are included in the revised version of Chapter VIII transmitted with these minutes.]

Mr. Shaver referred to the site selection criteria for the rainfall infiltration systems described on page 28. He cautioned that such systems would only be suitable for siting in certain areas of the environmental corridors, given that vegetation changes and some grading may be required. Mr. Biebel agreed, and indicated that appropriate caution regarding this observation would be added to the text.

[Secretary's Note: In order to qualify the potential of the environmental corridors for siting rainfall infiltration facilities, the text on page 28 (now page 31) has been revised. The revised text is included in the revised version of Chapter VIII provided with these minutes.]

Mr. Biebel reported that Ms. Conley's written comments recommended that the text on page 28 regarding the rainfall infiltration systems be expanded to indicate the potential for multiple benefits which can be achieved in such areas.

[Secretary's Note: In order to indicate the potential for multiple benefits of the rainfall infiltration measures, the text on page 28 (now page 32) has been expanded to note that the facilities can have multiple benefits. The revised text is included in the revised version of Chapter VIII provided with these minutes.]

Mr. Biebel indicated that Ms. Conley's comments also referred to the text describing the rainfall infiltration systems on page 28. She noted that the text stated that the rainfall infiltration could be accomplished using a variety of other types of facilities, rather than the facilities specifically described. She suggested that the alternative also include a provision for smaller rain garden stormwater bioretention facilities. Mr. Biebel reported that the Alternative Plan 3 assumed that the rainfall infiltration facilities would consist of relatively large sites which could provide an increase of about 3.0 million gallons per day of infiltration. He noted that this increase could, however, be accomplished in a number of optional ways, as noted in the text. The intention was to have the Alternative Plan 3 be representative of one option with the best means to be developed on a site-specific basis if Alternative Plan 3 were to be implemented.

[Secretary's Note: For clarification as to the type of recharge facility specifically included in Alternative Plan 3, a sentence has been added to the first partial paragraph on page 29 (now page 32). The added text is included in the revised version of Chapter VIII transmitted with these minutes.]

Mr. Grisa referred to Map VIII-15 and noted that the hatched color symbols were difficult to find. It was agreed that the maps would be revised accordingly.

[Secretary's Note: Map VIII-15 has been revised to more clearly indicate the location of the injection well and wastewater treatment plant effluent infiltration facilities. The revised map is included in the revised version of Chapter VIII transmitted with these minutes.]

Mr. Biebel reported that Ms. Conley had raised a question regarding the need for a tertiary level of wastewater treatment for wastewater that is to be infiltrated as set forth in the first paragraph on page 30. He noted that Ms. Conley had asked if the same tertiary treatment level should be considered for a return flow to Lake Michigan. Mr. Biebel indicated that such a treatment level would not be required for return flow to Lake Michigan, as the water quality standards for Lake Michigan could be met with the current levels of treatment provided. He noted that the effluent quality produced by the existing wastewater treatment plants considered for return flow typically was significantly better than required by permit for treatment plants discharging to Lake Michigan.

Mr. Biebel indicated that Ms. Conley's written comments had referred to the description of the injection wells on pages 30 and 31 and that she had asked why the wells were needed if a recovery in the deep aquifer was expected under Alternative Plans 2 and 3 without the injection wells. Mr. Biebel indicated that it had not been known that such a recovery could be expected in the absence of the injection wells before the modeling was concluded. He noted, furthermore, that Alternative Plan 3 was designed to identify the incremental impact of the injection wells and that it appeared that Alternative Plan 3 provided enough reduction in pumping and increase in recharge that it approached meeting the objective of 2003 Wisconsin Act-210. He concluded that the inclusion of the injection wells in Alternative Plan 3 had provided the sought-after information. At this time, the components to be updated in the recommended plan had not been determined.

Mr. Grisa referred to the description of the deep aquifer injection wells on pages 30 and 31. He asked who would bear the cost of such wells. Mr. Biebel indicated that the costs associated with the components of the alternative plans have not been assigned to specific parties. He indicated that would be done only for the recommended plan in a plan implementation chapter. He noted that most likely the costs would be assigned to the deep aquifer groundwater suppliers who would most benefit from the resulting deep aquifer drawup.

Mr. Holschbach asked if such injection wells were used in other parts of the country. Mr. Biebel indicated the City of Oak Creek has an aquifer storage and recovery system similar to the facilities proposed. He also noted that a report was done in the early 1980s recommending such a system for the Chicago area. However, that system was never installed. Mr. Biebel acknowledged that there were regulatory and water quality issues associated with an injection well component which would have to be considered if that component were to be included in the preferred plan. Dr. Cherkauer observed that such systems have been used for many years in places like California. He added that at least some of the injected water would likely flow underground westerly under the subcontinental divide and, thus, would raise a diversion issue.

Mr. Czarkowski indicated that it would be difficult to evaluate the impacts of the injection wells on water quality without pilot-scale testing. Thus, he indicated that it would be difficult to pass final judgment on this component at the systems planning level. He noted that water quality issues have been raised in testing of such wells in Oak Creek and Green Bay.

Mr. Yttri indicated that the Oak Creek Water Utility does have an approved Aquifer Storage and Recovery (ASR) plan and permit that deals with the manganese issue which arose during testing.

[Secretary's Note: Based upon staff discussion with the Wisconsin Department of Natural Resources staff, it was determined that the City of Oak Creek Water Utility has a conditional operating permit for its ASR system. One of the conditions is that the quality of the injected water meets groundwater standards. The Department staff indicated that issues remain concerning only the manganese and iron standards.]

Dr. Cherkauer referred to Map VIII-17 illustrating drawdown and drawup in the Silurian dolomite portion of the shallow aquifer. He indicated that the artificial infiltration provides recharge to the sand and gravel portion of the shallow aquifer. He suggested that the drawdown in the shallow sand and gravel aquifer mapping would be more representative. Mr. Biebel agreed.

[Secretary's Note: Maps VIII-2, VIII-11, and VIII-17 have been revised to indicate the drawdown and drawup in the sand and gravel portion of the shallow aquifer, rather than in the Silurian dolomite. The revised maps are included in the revised version of Chapter VIII transmitted with these minutes.]

Mr. Biebel reported that Ms. Conley had referred to the potential consideration of increased runoff due to changes in land use as a component of streamflow in the third full paragraph on page 38. She indicated that such increases in runoff could potentially be detrimental for a number of reasons. She recommended that the text indicate some of these concerns. Mr. Biebel indicated that in the context of the discussion, the increase in runoff being considered due to changes in land use had largely already occurred and, in most cases, new detrimental effects were not expected, given the current stormwater management practices and regulations.

[Secretary's Note: The text in the third full paragraph on page 38 (now page 41) was revised to indicate that any future increases in runoff due to land use changes could have some detrimental impacts. The revised maps are included in the revised version of Chapter VIII transmitted with these minutes.]

Mr. Biebel reported that Ms. Conley's comments also referred to the last paragraph on page 40. She recommended text be added regarding the desirability of keeping water within natural drainage basins and

recycling it, rather than transferring it out of the basin. Mr. Biebel indicated that this section of the report was intended to describe the impacts of Alternative Plan 3 in a manner consistent with the description of the other alternative plans, and that Ms. Conley's suggested addition to the text would be more appropriately included in the chapter presenting the findings of the comparative evaluation of the alternative plans.

Mr. Grisa noted the reduction in chloride discharges of about 3.8 million pounds—1,900 tons—associated with the elimination of water softening for selected communities under Alternative Plans 2 and 3, as noted on page 43 (now page 44). He indicated that that amount appeared to be small compared to the amount of salt used for snow and ice control on the streets and highways of the area. Mr. Biebel noted that the 1,900 tons of chloride cited equates a little over 3,000 tons of salt per year. Mr. Grisa indicated that the City of Brookfield alone used about 4,400 tons of road salt in an average year. Mr. Biebel indicated that the reduction in chlorides being discharged was not trivial, in that many wastewater treatment plants were pushing up towards their effluent limits for chloride. He noted this situation would be helped considerably if water softener use were discontinued.

Mr. St. Peter noted that the Great Lakes-St. Lawrence River Basin Water Resources Compact had been approved by the State Legislation and was being expected to be approved by the Governor. He asked if there were changes in the plan which should be considered to make it current. Mr. Biebel indicated that in terms of the alternative plans, no changes were needed, since the plans were specifically designed to be consistent with the Compact. However, he noted that there may be some text in earlier chapters where the Compact is referenced which may need to be rephrased due to its now-approved status in Wisconsin. He indicated that would be done as part of the final editing.

There being no further questions or comments, Chairman Bauer observed that Chapter VIII would need substantial reordering and revision. However, he noted that there would still be value in approving, as amended, the portion of the chapter which was reviewed. This being said, would guide the staff in making the necessary revisions.

Mr. Mueller then moved, and Mr. Melcher seconded the motion to approve as amended pages 19 through 42 of Chapter VIII, "Alternative Plans: Description and Evaluation," concerning Alternative Plans 2 and 3 and the introductory description of Alternative Plan 4 of SEWRPC Planning Report No. 52, *A Regional Water Supply Plan for Southeastern Wisconsin*.

Mr. Yttri indicated he still had concerns about the way in which the operation and maintenance costs were being presented and he would, therefore, have to vote no on the motion. Mr. Biebel indicated that prior to the meeting he had discussed the concern raised with Mr. Yttri, that concern relating to the inclusion of the operation and maintenance costs for new facilities, but not for existing facilities, the later being, he noted, common to all alternative plans. He indicated that the primary reason for taking this approach in system-level planning is because the existing facility operation and maintenance costs are relatively high compared to those costs for the new facilities, and including such costs tends to mask the differences between facilities needed to be constructed under the alternative plans. He noted that given that such costs are common to all alternative plans, there was no need to include them in any alternative plan for purposes of comparative evaluation. He indicated that the operation and maintenance costs attendant to the existing facilities would be included in the cost of the final recommended plan in order to present a complete description of the costs attendant to that plan. However, for the comparison of alternative plans, the cost factor which matters is the differences in the costs of capital and operating and maintaining the new facilities envisioned.

Mr. Yttri indicated that he disagreed that the operation and maintenance cost for existing facilities were not to be specifically included when such costs for new facilities were included. He indicated that in the case of the City of Oak Creek Utility, a water treatment plant expansion was imminent and the operation and maintenance costs for that expansion were included in the alternatives. He indicated, in contrast, the operation and maintenance costs for existing water treatment plants were not included. Mr. Yttri indicated that he believed this procedure to be inconsistent, and for that reason, he reiterated he would have to vote no on the motion.

Mr. Yunker asked if there were examples of other operation and maintenance costs of the existing facilities which were or were not being included in the casting of alternative plans. Mr. Biebel replied that all of the existing utilities had certain operation and maintenance costs associated with existing facilities, such as the operation and maintenance of existing wells which were common and not included in any of the alternatives. Conversely, he noted that the operation and maintenance cost of all new facilities, such as new wells associated with the alternative plans were included.

Mr. Duchniak asked if the proposed approval of the chapter included approval of the description of Alternative Plan 4. Chairman Bauer indicated the approval applied only to the text reviewed which consisted of an introduction to the plan description on pages 41 and 42. Mr. Duchniak asked if consideration would be given in the plan to providing water to the Waukesha area from the Racine Water and Wastewater Utility. Mr. Biebel indicated that it had been envisioned to consider three subalternatives for Alternative Plan 4. The subalternatives would be related to the Lake Michigan source of supply for the areas for which a Lake Michigan supply was being proposed to replace the groundwater supply. He indicated that the subalternatives were summarized on page 42 and did not consider the Racine Water and Wastewater Utility as such a source of supply. Mr. Duchniak asked if another subalternative could be added using the Racine Water and Wastewater Utility as the source of supply. After further discussion, it was agreed by consensus that a fourth subalternative would be added to the description to be provided of Alternative Plan 4 which would propose the Racine Water and Wastewater Utility as the source of supply for the Waukesha area.

Mr. Duchniak asked if the City of Waukesha Water Utility should be included in the description of Subalternative 1 on page 42. Mr. Biebel indicated in the affirmative and duly noted the change.

Chairman Bauer then called for a vote on the motion to approve the chapter as reviewed and amended. The motion was carried, with Mr. Yttri voting no.

Chairman Bauer then reported that the staff was recommending that the planning report structure be revised to include a chapter which sets forth the findings of the comparative evaluation of the alternative plans concerned, as well as the selection of the initially preferred alternative. He noted that that information was originally proposed to be included in Chapter VIII. However, because of the size and complexity of Chapter VIII, it was felt that a separate chapter would be appropriate for the presentation of the findings of the comparative evaluation. Chairman Bauer indicated that such a comparative evaluation was, in his opinion, extremely important and warranted a separate chapter. He indicated that if the Committee agreed, Chapter VIII would be completed by completing the description of Alternative Plan 4 and adding a summary section; and that a new Chapter IX would be prepared to present the findings of the comparative evaluation of the alternative plans and to describe an initially preferred alternative plan. The Committee agreed by consensus to the recommended changes in the structure of the planning report.

OTHER BUSINESS—CORRESPONDENCE

Chairman Bauer then asked the Committee to consider correspondence under Agenda Item 5. He noted that all members of the attending Committee had been provided with a copy of an announcement of a water supply forum the agenda for which included a report on the Lake County, Illinois, water supply planning activities. Mr. Biebel reported that the Commission staff would attend to monitor the meeting and continue to coordinate planning efforts. Chairman Bauer indicated that the Commission staff would report back to the Committee if there was important information provided at the Lake County forum that would be relevant to the Committee's work.

DATE AND TIME OF NEXT MEETING

After brief discussion, it was agreed that the next meeting of the Advisory Committee would be tentatively scheduled to be held at the Commission offices on Tuesday, July 22, 2008, beginning at 9:00 a.m. Chairman Bauer noted that a draft of the remaining portions of Chapter VIII, and a draft of the new chapter describing the

findings of the comparative evaluation of the alternative plans and a conceptual description of the initially preferred plan should be ready for Committee consideration.

ADJOURNMENT

There being no further business to come before the Committee, on a motion by Mr. Grisa, seconded by Mr. Ericson, and carried unanimously, the meeting was adjourned at 11:30 a.m.

* * *

#137214 V1 - RWSP MINUTES 05/20/08
310-1001
KWB/RPB/pk/lgh/pk
07/07/08

Exhibit A

Biebel, Robert P.

From: Lisa Conley [mailto:lconley101@gmail.com]

Sent: Saturday, May 17, 2008 4:08 PM

To: Biebel, Robert P.

Subject: comments on WAter supply plan chapter VIII

Very sorry to miss this meeting - please let me know when the next one is scheduled. Thanks

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Lisa Conley

262/567-5947

lconley101@gmail.com

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has."

Margaret Mead

SEWRPC comments on Chapter VIII – Regional Water Supply Plan for SE WI p19-42

In general, while packed with good information, this was difficult for me to compare and analyze. Some information I would like to see

Triple bottom line analysis of each alternative:

- Economic impact analysis,
- Environmental impact analysis,
- Social impact analysis

Emphasizing one or two of these without the others will not give us a truly sustainable system. Without this analysis we run the risk of solving one problem but creating others

I hope that the high level water conservation alternative, and a triple bottom line analysis of the water that could be saved by such measures as prohibiting lawn watering with groundwater, or requiring greywater systems in new construction (or retrofits) in areas of water quantity problems. I am amazed that I can fill two rainbarrels with 1/4 inch of rain from 1/3 of our garage roof – lots more could be captured and used with bigger storage capacity. The potential for using rainwater for yard, and even more household uses is huge, and I hope to see a triple bottom line analysis of using these kinds of systems where needed so that they can be compared to the other alternatives.

There is discussion about the large amount of water used in Illinois – shouldn't we be talking about working with them to ensure a sustainable supply on both sides of the state line? This should be part of the plan, or we have a tragedy of the commons.

Thinking beyond 2035 - If we finally agree on a plan that still reduces the available water supply, in lesser amounts, I am concerned that we will still be creating an unsustainable system in the longer run?

Maps:

- I would like to see side-by-side comparisons of alternative drawdown/up alternatives
- It's hard to compare the maps showing baseflow depletion visually – a narrative pointing out the differences would be helpful too.

I am not clear on what the projected baseflow deficits would really look like from the standpoint of our lakes and rivers. How worried should we be? Do you see serious problems for Lake Beulah, or area trout streams, etc?

Specific comments:

In Alternative 3, page 28, pp2, I would like to see an expanded discussion of the benefits of protecting and enhancing recharge areas – wildlife habitat, open space as component of the natural beauty of Wisconsin – economic benefit to tourism and aesthetic to residents, protection of stream corridors, floodplains and headwaters and in keeping or restoring water fishable and swimmable and the value of protecting agricultural land to maintaining local food economies. There is real economic value here for the area.

If a similar amount of water can be used for recharge by using smaller, local systems, like raingardens, what would the result be if we used both these approaches, rather than one or the other? (maybe this is already done – it wasn't clear.)

On page 30 – top - If tertiary treatment is needed to protect groundwater, should we be considering the same level of protection for Lake Michigan? I know this is a huge question, but what about the long term impacts of putting increased levels of pharmaceuticals, and other non-conventional emerging pollutants into our great lakes as more communities are added to the lake Michigan system? Pharmaceuticals are already showing up in big city drinking water, to say nothing of the impacts on fish and other aquatic life? Are we going to ignore this because the cost is huge? (Triple bottom line?) could the cost of not looking at this also be huge in the future?

Page 31 – top pp: I am not clear on the benefits of enhanced recharge for the deep aquifer. If we are shifting to more reliance on the shallow aquifer, are we putting water in the bank (deep aquifer) for future use? Is this a security issue? It seems the deep aquifer will rebound in time without enhanced recharge, given reduced use – is this true?

Page 38 – pp3: Increase in runoff due to changes in land use may enhance stream flow, but in ways that are very detrimental to the streams – getting flashy and increased erosion, loss of water that is cooled and filtered by the ground, temperature impacts to aquatic life, and a whole list of pollutants associated with stormwater. Let's include this kind of language if we are considering stormwater as a return flow.

Page 40 – bottom: I would like to see a clearer discussion of the benefits of keeping water in the basin, recycling for future use, versus sending it down our rivers to the Mississippi River and ultimately to the Gulf of Mexico. Enhancing recharge does this. Using our stormwater as a resource does this. The more we can recycle the same water in the basin, the more we will have to use.

Page 42 – top: Again - if are we talking about sending increased stormwater to lake Michigan as a benefit in terms of quantity, we need to address the quality issues at the same time.

Map VII-10 – are there any planned deep wells? Couldn't find one with the deeper color.

Map VII-15 – pale cross hatching too hard to see/find for wastewater infiltration facilities