

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

DATE: June 30, 2009

TIME: 9:30 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
Thomas J. Bunker	Representative, Water and Wastewater Utility, City of Racine
John Carlson (for Thomas M. Grisa)	Engineering Project Manager, City of Brookfield
Lisa Conley	Representative, Town and Country Resource Conservation and Development, Inc.
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
Franklyn A. Ericson	Manager, Environmental Operations & Central Services, S.C. Johnson & Son, Inc.
Terrence H. Kiekhaefer	Director of Public Works, City of West Bend
Carrie M. Lewis	Superintendent, Milwaukee Water Works, City of Milwaukee
Mark Lurvey	Agricultural Business Operator, Lurvey Turf Nursery
J. Scott Mathie	Director of Government Affairs, Metropolitan Builders Association of Greater Milwaukee
George E. Melcher	Director, Kenosha County Department of Planning and Development
Michael P. Rau	President, City Water, LLC
Edward St. Peter	General Manager, Water Utility, City of Kenosha
Dale R. Shaver	Director, Waukesha County Department of Parks and Land Use

**MEMBERS EXCUSED OR OTHERWISE ABSENT**

Julie A. Anderson	Director, Racine County Division of Planning and Development
Douglas S. Cherkauer	Professor of Hydrogeology, University of Wisconsin-Milwaukee
Michael P. Cotter	Director, Walworth County Land Use and Resource Management Department
Charles P. Dunning	Hydrologist, U.S. Geological Survey
David Ewig	Water Superintendent, City of Port Washington
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

Thomas J. Krueger	Water and Wastewater Utility Director, Village of Grafton
Paul E. Mueller	Administrator, Washington County Planning and Parks Department
Jeffrey Musche	Administrator/Clerk, Town of Lisbon
James Surfus	Senior Environmental Engineer, MillerCoors, LLC
Jack H. Takerian	Interim Director, Milwaukee County Department of Transportation & Public Works
Daniel S. Winkler	Director of Public Works and Utilities, City of Lake Geneva
Steven N. Yttri	General Manager, Water and Sewer Utility, City of Oak Creek

## **GUESTS**

Butch Eucker	Concerned Citizen
Keith E. Haas	General Manager, City of Racine Water and Wastewater Utility
James Rowen	Concerned Citizen
Steven H. Schultz	Department Head, Water Supply and Wastewater Treatment, Ruekert & Mielke, Inc.
Yash P. Wadhwa	Director of Operations, Strand Associates, Inc.
Ben Wood	Engineer, Strand Associates, Inc.

## **STAFF**

Stephen Adams	Public Involvement and Outreach Manager, Southeastern Wisconsin Regional Planning Commission
Joseph E. Boxhorn	Senior Planner, Southeastern Wisconsin Regional Planning Commission
Michael G. Hahn	Chief Environmental Engineer, Southeastern Wisconsin Regional Planning Commission
Kenneth R. Yunker	Executive Director, Southeastern Wisconsin Regional Planning Commission

## **CALL TO ORDER AND ROLL CALL**

Chairman Bauer called the meeting to order at 9:30 a.m. Roll call was taken by circulating an attendance signature sheet, and a quorum declared present. Chairman Bauer then asked Mr. Bunker to introduce Mr. Keith Haas, the General Manager of the Racine Water and Wastewater Utility, who was attending the meeting as a guest. Following the introduction, Chairman Bauer welcomed Mr. Haas on behalf of the Advisory Committee.

## **CONSIDERATION OF MINUTES OF THE MEETING OF SEPTEMBER 23, 2008**

Chairman Bauer noted that copies of the minutes of the September 23, 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 last portion of Chapter IX, "Alternative Plan Comparative Evaluation and Selection of a Composite Plan," pages 23 through 49 (now pages 24 through 59) covering the conceptual description of the two subalternative composite plans, the selection of the preliminary plan to be presented for public review, and the consideration for a higher level of water conservation. He noted that a revised copy of Chapter IX in its entirety accompanied the minutes and that the approvals of the appropriate sections would be subject to any comments received on the minutes at this meeting.

Ms. Lewis referred to page 12 of the minutes which indicates that the text in Chapter IX on water conservation would be expanded to note the need to consider potential future water conservation requirements which may be included in the Wisconsin Department of Natural Resources (WDNR) rulemaking process currently underway to implement the Great Lakes Compact. She indicated that the addition to Chapter IX did not appear to have been made. Mr. Biebel responded that he would review Chapter IX and add the indicated text as appropriate.

[Secretary's Note: A review of Chapter IX indicates that the text on the water conservation rulemaking process required expansion. Accordingly, the second full paragraph on page 57 has been revised to read as follows:

“The water conservation programs developed by the water utilities will have to specifically be designed to meet the requirements of the ongoing Wisconsin Department of Natural Resources (WDNR) rulemaking process. This rulemaking process is being carried out to meet the requirements of the Great Lakes-St. Lawrence River Basin Water Resources Compact and Wisconsin Act 227, related groundwater protection legislation, and the September 2006 Report to the Governor on Water Conservation. The Wisconsin Act 227 requires that the WDNR establish statewide water conservation and efficiency goals and objectives and to establish rules specifying the requirements for water conservation and efficiency for applicants for new or increased diversions. The WDNR is to initiate the water conservation rulemaking process during the second half of 2009, with completion expected in late 2010. The conservation measures to be considered may include measures for sanitary sewerage system protection and stormwater management, as well as for water supply. The proposed water conservation programs and measures included in the preliminary recommended water supply plan were based upon careful consideration of a wide range of water conservation measures and levels of implementation as documented in the state-of-the-art of water supply practices report. Accordingly, the recommendation should serve as a sound basis for development of local utility-specific water conservation programs with the framework of the WDNR regulations being developed.”]

There being no further corrections or additions, the minutes of the meeting of September 23, 2008, were approved as amended on a motion by Mr. Melcher, seconded by Ms. Lewis, and carried unanimously.

**CONSIDERATION OF SEWRPC TECHNICAL REPORT NO. 48, *SHALLOW GROUNDWATER SUSTAINABILITY ANALYSIS DEMONSTRATION FOR THE SOUTHEASTERN WISCONSIN REGION***

Chairman Bauer then asked the Committee to consider Agenda Item 3. He noted that all Committee members had received a copy of Technical Report No. 48, *Shallow Groundwater Sustainability Analysis Demonstration for the Southeastern Wisconsin Region*, dated June 2009, for review prior to the meeting. He noted that the report was the second of three technical reports being prepared by the Wisconsin Geological and Natural History Survey, the University of Wisconsin-Milwaukee, and the U.S. Geological Survey in support of the regional water supply planning program. The first of the three reports, he said, dealt with the groundwater recharge potential in the Region, was reviewed and approved by this Committee, and has been published; while the third report—Dr. Cherkauer's report—is under preparation and relates to the development and application of groundwater budget indices in the evaluation of alternative water supply plans. He noted that the three reports were all intended to be published as SEWRPC technical reports.

Chairman Bauer noted that Dr. Kenneth R. Bradbury of the Wisconsin Geological and Natural History Survey, and a Committee member, one of the two authors of the groundwater sustainability report, was in attendance. He

then asked Dr. Bradbury to review the report with the Committee on a page-by-page basis. The following comments were made, questions asked, and actions taken during the review.

Ms. Conley referred to the paragraph on assessment criteria on page 6 and asked what timeframe the groundwater drawdown estimates reflected. Dr. Bradbury responded that the drawdown estimates represented maximum long-term steady state amounts which, when reached, would be sustained over a long period of time and represented a “worst-case” scenario.

Mr. Bunker referred to Figure 12, and recommended that the words “recharge percentage” be changed to “recharge percentage consumed” on the title and the legend. The Committee agreed by consensus to make the recommended change.

Ms. Conley noted that the Town of Raymond demonstration area exhibited the most significant impacts due to pumping and indicated that she assumed this was due to the heavy clay soils prevalent in that Town. She noted that the impacts of pumping could be partially offset if the rainwater were trapped and utilized before it runs off thereby reducing the pumping demand. Dr. Bradbury agreed, but indicated that such an intervention was not considered as part of the analyses conducted.

Mr. Shaver referred to the terms urban and suburban residential development in the first paragraph on page 23. He recommended that, for consistency, these terms be revised to reflect the development densities used in a manner consistent with other regional and county planning terminology. The Committee agreed by consensus to request the staff to make the necessary revisions.

[Secretary’s Note: The term “urban/suburban residential development” in the first paragraph on page 23 (now page 24) have been changed to read “medium- and low-density urban, suburban, and rural density residential development.” Similar changes were also made on pages 5, 6, and 24 (now page 25).]

Mr. Shaver referred to the third bulleted item on page 23 and recommended that the lot sizes be noted after the term “most aggressive development scenario” in a manner similar to that used under the second bulleted item on page 23. The Committee agreed by consensus to the recommended change.

[Secretary’s Note: The term “(1.0-acre or smaller lots)” was inserted after the word “scenario” in the third bulleted item on page 23 (now page 24).]

Mr. Shaver also recommended that relationship between the lot sizes and densities of development be clarified. Upon discussion, the Committee agreed by consensus to request the staff to add the recommended clarifying text.

[Secretary’s Note: In order to clarify the relationship between lot sizes and development density, the following paragraph was inserted as the second full paragraph on page 5:

“In analyzing the impacts of the demonstration areas, it was assumed that development of the land involved in each demonstration area would utilize uniform lot sizes to achieve the represented density. For example, allowing for the allocation of 20 percent of the site area to streets, a 160-acre area developed at a density of one gross acre per dwelling unit, would have 160 0.8-acre lots and 160 relatively evenly spaced domestic wells. Similarly, allowing for the allocation of 10 percent of the site area to streets, a 160-acre area developed at a density of five gross acres per dwelling unit, would have 32 4.5-acre lots and 32 relatively evenly spaced domestic wells. It is recognized that there are an infinite combination of lot sizes, street areas, and open space areas which could be used to obtain a specified overall density on a

development site. The use of cluster subdivision design, with relatively small lots, such as one-half- or one-quarter-acre lots, would permit the attainment of the desired overall density while preserve large areas of open spaces and have a lesser impact on stormwater runoff and, therefore, higher recharge amounts than the same lot sizes with no preserved open spaces. The impacts of combinations of lot sizes and open space preservation scenarios on groundwater quantity can be interpolated by comparing the average development site area per residential lot to the uniform lot spacing scenarios considered in this report. In this regard, if lots are clustered, there may be wells developed which serve multiple housing units.”]

Mr. Rau referred to page 6, noting the assumed per capita water use of 65 gallons per day, indicating that this value was variable across the Region, and, moreover, is affected by summer outdoor water use practices. Dr. Bradbury responded that the value of 65 gallons per person per day was selected as a reasonably representative value based upon the findings of the state-of-the-art study coordinated under the planning program. After further discussion, the Committee agreed by consensus to request the staff to add text explaining the reason for the selection concerned and noting the variability does exist.

[Secretary’s Note: The following text has been added as a footnote to the second bulleted item under the heading “Assumption” on page 6:

“The per capita water use of 65 gallons per person per day was selected as a representative value for areas developed with private wells based upon water use data developed under the planning program as reported in SEWRPC Technical Report No. 43, *State-of-the-Art of Water Supply Practices*, assuming a 5 percent reduction over current usage over time for the effect of water conservation measures. The per capita water use value will vary depending upon a number of factors, including outdoor water use practices, and the number of fixture units per housing unit. During the year 2005, municipal utility residential water use within the Region ranged from 51 to 96 gallons per capita.”]

Mr. Melcher referred to the relatively lower impacts of private well pumping in the Town of Wheatland, compared to the impacts in the Town of Raymond. He noted that the sand and gravel subsurface conditions in the Town of Wheatland may be favorable from a groundwater quantity standpoint. However, he cautioned that there could be groundwater quality issues in areas with permeable sand and gravel deposits, particularly in areas having a concentration of small lots. Mr. Biebel indicated that the groundwater quality issue raised was an important one, but that the report was directed only at groundwater quantity.

Ms. Lewis suggested that the focus of the report on groundwater quantity and not quality be made more explicit. Mr. Bunker recommended, and the Committee agreed by consensus, to change the title of the report to “Shallow Groundwater Quantity Sustainability within the Southeastern Wisconsin Region.”

Ms. Conley noted the potential reduction in baseflow from the Lauderdale Lakes which might be expected under the scenario whereby the spent water would not be returned to the groundwater reservoir through onsite sewage treatment and disposal systems. She noted that in an area with a low recharge potential, such as the Town of LaGrange, there can be significant impacts on the baseflows of streams due to well pumping. Chairman Bauer noted that the impacts noted would not be an issue if the regional land use plan were followed, as that plan did not envision any significant new urban development in the Town of LaGrange in the vicinity of the Lauderdale Lakes. Mr. Biebel noted further that no municipal sanitary sewer service was planned for the Lauderdale Lakes area. Ms. Conley suggested that the text be expanded to indicate that the potential impacts of concern could be avoided if the regional land use plan is followed. Mr. Mathie noted that the land use scenarios being considered were indeed different than recommended in the land use plan, and it would be desirable to indicate that those scenarios represented extremes which were being assumed for analytical purposes.

After further discussion, the Committee agreed by consensus to direct the staff to add a bulleted item on page 24 to reflect the concerns and conclusions raised.

[Secretary's Note: The following paragraph has been added as the last bulleted item on page 24 (now page 25):

- “• The development scenarios evaluated in this report which consider urban or sub-urban development utilizing private wells or areas lying beyond the planned urban service areas are at variance with the regional land use plan.<sup>1</sup> These development scenarios were specifically assumed to represent potential extremes in development patterns in order to bracket the potential associated impacts. The negative impacts identified as potentially associated with selected development scenarios utilizing private wells would be largely avoided if the recommendations of the regional land use plan are followed. That plan focuses the new urban development near existing urban centers in areas that can be readily served by public water supply, as well as public sanitary sewerage systems, mass transit, and police and fire protection services.

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<sup>1</sup>*SEWRPC Planning Report No. 48, A Regional Land Use Plan for Southeastern Wisconsin: 2035, June 2006.*”]

Ms. Conley noted that there were also existing high-capacity wells located in the vicinity of the demonstration areas considered which could also impact groundwater levels and surface water baseflows. Mr. Biebel agreed, but noted that evaluation of such wells was not included in the scope of Dr. Bradbury's study which was intended to identify the potential impacts of new residential developments. Chairman Bauer noted that the regional water supply plan did include recommendations for considering the impacts of high-capacity wells. Mr. Czarkowski noted that current Wisconsin Department of Natural Resources regulations and policy requires a permit application for all new high-capacity wells and an analysis of impacts on important resource waters. Mr. Carlson noted that the requirements noted by Mr. Czarkowski also applied to municipal wells.

Mr. Duchniak referred to the second paragraph on page 3 and noted that the paragraph included text on community wells and their potential impacts. He suggested and the Committee agreed by consensus to direct the staff to expand the text of the first full paragraph on page 4 to indicate that the scope of the report was focused on development with private individual wells, as opposed to community wells.

[Secretary's Note: The following sentences have been added to the first full paragraph on page 4:

“The report is intended to evaluate the potential impacts of the use of individual private wells to support ex-urban development. The use of community wells to serve such developments was not specifically addressed.”]

Upon completion of Dr. Bradbury's review, Ms. Lewis complemented Dr. Bradbury on the clear and concise documentation of the study results.

Mr. Biebel noted that the analyses developed by the WGNHS represented pioneering work which has not been done before, at least in Wisconsin. Chairman Bauer thanked Dr. Bradbury and the WGNHS for their work on the technical report.

There being no further questions or comments, Technical Report No. 48, *Shallow Groundwater Sustainability Analysis Demonstration for the Southeastern Wisconsin Region*, dated June 2009, was approved as amended on a motion by Mr. Shaver, seconded by Ms. Conley, and carried unanimously.

**CONSIDERATION OF PAGES 1 THROUGH 18 OF CHAPTER X, “RECOMMENDED WATER SUPPLY PLAN,” OF SEWRPC PLANNING REPORT NO. 52, A REGIONAL WATER SUPPLY PLAN FOR SOUTHEASTERN WISCONSIN. THIS PORTION OF THE CHAPTER DOCUMENTS THE PUBLIC REACTION TO THE PRELIMINARY PLAN AND THE PROPOSED STAFF RESPONSES TO THE COMMENTS RECEIVED**

Chairman Bauer asked the Committee to consider Agenda Item 4. He noted that all Committee members had received a copy of a portion of Chapter X, “Recommended Water Supply Plan,” for review prior to the meeting. He noted that the portion of Chapter X, pages 1 through 18, summarized the public reaction to the preliminary recommended plan and the proposed staff responses to the comments. Chairman Bauer noted that the rest of Chapter X would consist of a description of the final recommended regional water supply plan. He indicated that preparation and Committee review of that section of the chapter would have to be held in abeyance until completion of a socioeconomic impact evaluation of the proposed regional water supply plan which had been requested by the Commission Environmental Justice Task Force. The evaluation is planned to be done by a consultant retained for this purpose and is expected to be completed by November of this year. The findings of the evaluation will be reported to this Committee at that time, along with a proposed plan.

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

Ms. Conley noted that the text of the chapter included significant sections providing a defense of the regional land use plan. She suggested that some of the criticism of the land use plan was perhaps related to changes made to, or departures from, the adopted regional plan, by town governments to accommodate additional development over-and-above that proposed in the regional plan. Mr. Biebel indicated that there has been some recognition of local plans and zoning. Chairman Bauer indicated that Ms. Conley’s concerns were indeed valid, but reminded all concerned that the regional plans are, by law, strictly advisory, and rather than attacking the plan, environmental groups would be better served by seeking to strengthen its implementation.

Ms. Conley questioned the extent of prime agricultural land preservation that was included in the land use plan. Mr. Yunker indicated that the latest adopted land use plan recommends the preservation, to the extent practicable, of the most productive farmland in the Region, defined as farmland covered by agricultural capability Class I and Class II soils. The adopted regional land use plan seeks to preserve this most productive farmland, which represents about 75 percent of the Region’s farmland, as well as the remaining farmland in the Region, by directing, as already indicated, urban development away from such lands, to the areas in, and immediately adjacent to, existing urban centers. He noted that some limited development on prime agricultural lands would, in any case, have to be provided for areas near and in the urban centers, such as in the Cities of Franklin and Oak Creek. He added that a limited amount of sub-urban development—residential development at overall densities of 1.5 to 5.0 acres per unit—representing a few thousand housing units was provided in the plan on existing created platted lots, and an additional amount of rural development—residential development at overall densities equivalent to 5.0 acres per unit—representing another few thousand households was provided in the plan. This rural development was generally not allocated to Class I and Class II farmlands, and was encouraged to occur in cluster or conservation subdivisions to further preserve farmland. He further noted that the plan recommended that counties conduct prime farmland preservation planning, addressing farmlands with Class I and Class II soils and other factors, such as size of farm units and size of the overall farming area. Ms. Conley indicated her agreement with and support of the underlying principles in the land use plan as described.

[Secretary’s Note: Mr. Yunker subsequently checked the regional land use plan and reported the following:

Sub-Urban-Density Residential Development (1.5-4.9 acres per dwelling unit)  
The regional land use plan included 3,400 households which were located on existing platted lots. This represents about 2 percent of the planned increase in households.

Rural-Density Residential Development (5.0 acres or greater per dwelling unit)  
The regional land use plan included 3,700 households, some of which were located on existing platted lots. This represents about 2 percent of the planned increase in households.

Both of these development components were included in the land use plan from the initial plan development stages.]

Ms. Lewis referred to the response to the comment on the preparation of a socioeconomic analysis on page 5. She asked if this Committee would be involved, and what the timeline for that study would be. Chairman Bauer indicated that the results of the socioeconomic impact analysis would be reported back to this Committee and that this Committee, upon consideration of the reported findings of the impact analysis, would be responsible for recommending a final plan to the Commission.

Mr. Bunker referred to the comment and response on water loss estimates on the bottom of page 5. He noted that it was troubling that such estimates would be questioned, as they are made with great care and documented in reports certified to the Public Service Commission. He indicated general agreement with the response, but, in order to strengthen it, he recommended the word “documented” be inserted after the word “reports” in the third line of the last paragraph on page 5. The Committee by consensus concurred.

[Secretary’s Note: The word “documented” was inserted after the word “reports” in the third line of the last paragraph on page 5.]

Ms. Lewis referred to the comment and response regarding the option of providing a water supply to the City of Cedarburg and the Village of Grafton areas by connection to the City of Port Washington water supply system, as documented on page 8. She recalled one of the planning standards provided for maximizing the use of existing facilities. She suggested that reference to that standard could strengthen the response. Mr. Biebel agreed, but noted that, although there was no significant excess capacity in the Port Washington water treatment plant, Ms. Lewis’ comment would, nevertheless, apply because of the common use of selected facilities, such as administration offices and laboratory facilities.

[Secretary’s Note: In order to strengthen the response to the option of providing water from the City of Port Washington to the Cedarburg-Grafton area, the following sentence was added ahead of the last sentence in the response to the second comment on page 8:

“The option of providing water supply to the City of Cedarburg and the Village of Grafton from the City of Port Washington water supply system would have a potential advantage of best meeting the planning standard relating to maximizing the use of existing water supply facilities.”]

Ms. Lewis noted that the provision of water across the subcontinental divide and the concurrent return flow would constitute a plan element under the Great Lakes Compact for which the Wisconsin Department of Natural Resources was developing new regulations. She recommended that the plan include provisions to wait for that rulemaking process to be completed prior to implementation of the related plan elements. Mr. Biebel replied that such an action could be considered by the Committee as part of the final recommended plan implementation chapter. However, he noted that such a provision was not appropriate in the portion of Chapter X being reviewed which included responses to specific comments received on the preliminary recommended plan, as the issue had not been raised in the comment being responded to. Ms. Lewis indicated that the City of Milwaukee did want



such a provision included in the appropriate report section. Mr. Duchniak noted that the Wisconsin Department of Natural Resources staff has stated that it is not necessary to wait for the ongoing rule development process to process Lake Michigan withdrawal applications. He noted in an analogous situation the WDNR was processing high-capacity well permits prior to completion of new groundwater withdrawal-related rules.

Following further discussion, it was agreed that consideration of the issue of the timing of plan implementation in relation to rulemaking for Lake Michigan withdrawal applications would be deferred until the final recommended water supply plan implementation report section was considered.

Ms. Conley referred to the second comment on page 9 and indicated that the conclusions regarding the return flow from the Waukesha service area on Lake Michigan did not specifically include consideration of unregulated pollutants. She referenced reports indicating that these types of pollutants are a concern. Mr. Biebel noted that a recently completed SEWRPC Technical Report No. 39 did include a section providing the information on unregulated and emerging pollutants. He noted further that it was generally agreed that such pollutants were an important consideration. However, he noted that given the very small relative loading of conventional pollutants due to the return flow, a similar very small value loading of the unregulated pollutants would be expected. Ms. Conley responded that the issue of unregulated pollutants was never-the-less important. Mr. Biebel agreed that in the big picture of Lake Michigan, the issue was important, but reiterated that any such pollutant loadings from return flow concerned would be very small relative to the loadings of such pollutants from the large Lake Michigan plants.

Chairman Bauer stated that he agreed with Ms. Conley that unregulated pollutants were an important issue that should be addressed in terms of all sources of such pollutants tributary to the Great Lakes. He noted it was also an important issue for the populations using the Fox, Illinois, and Mississippi Rivers downstream of Waukesha as a source of supply. He concluded that the final water supply plan should include a section on this topic.

Mr. Bunker noted that the mere presence of potentially toxic substances, including unregulated pollutants, does not necessarily mean that a detrimental situation exists. He indicated that risk assessments are needed to determine the level of the problem. He noted further that the U.S. Environmental Protection Agency and the WDNR carry out extensive studies in this regard and that is where such concerns should be addressed.

Mr. Ericson noted that there is a potential issue related to the unregulated pollutants, both in Lake Michigan and in the Fox River, as well as in other waterbodies. However, the level of the problem should be addressed more globally than with the small impact of the return flow.

Mr. Biebel indicated that the response to the comment on page 9 could be expanded to include text on the broader issue of unregulated pollutants. Mr. St. Peter disagreed, indicating that the response as written was adequate for the comment received. Mr. Biebel indicated that another option, as suggested by Chairman Bauer, would be to consider the issue on a broader scale as part of the final recommended plan.

After further discussion, the Committee agreed by consensus to retain the response to the second comment on page 9 as written.

With regard to the first comment on page 10, Mr. Biebel indicated that the areas with existing development served by private wells which were noted to be considered potential municipal service areas were being categorized and symbolized differently in order to clarify the intent; the intent being that such areas would be provided with a municipal system only if and when a need is demonstrated, and then at the option of the affected residents and local units of government concerned, and that absent a demonstrated need and local initiative, residents and businesses of the areas would remain on individual wells.

Ms. Conley referred to the fourth comment and response on page 11 regarding the City of Waukesha water supply service area. She asked if there was consistency between the Waukesha water supply service area as set forth in

the regional water supply plan and the water supply service area set forth in a December 23, 2008, water supply service area plan prepared by SEWRPC for the City at the specific request of the Waukesha Water Utility. Mr. Biebel responded that the areas were intended to be consistent. He also noted that much of the Waukesha water supply service area was builtout, and that the increase in development envisioned is estimated to be about 15 percent over a 28-year planning period. He noted that some of the area included is served by private wells which may be converted to a municipal system, but only if needed to resolve water quality or quantity problems and at the local option.

[Secretary's Note: Staff review indicated that the December 2008 water supply service area is consistent with the water supply service area set forth in the regional water supply plan. A copy of the December 2008 water supply service area plan is included as Exhibit A. That plan includes a service area map and documentation with regard to the potential for development. The planned water supply service area map included in Chapter IV, "Anticipated Growth and Change Affecting Water Supply in the Region," is attached hereto as Exhibit B. That map has been refined over time, but remains nearly the same as initially developed. A review of the maps in Exhibits A and B indicates the Waukesha water service areas concerned are nearly identical. Very minor refinements were made to the December 2008 service area to reflect the planned sewer service area with a design year 2028 design year for the local plan, versus a 2035 design year for the regional plan.]

Mr. Duchniak indicated that the December 2008 Waukesha water supply service area was consistent with local plans and that water demands for the area were developed considering water conservation efforts. He noted that the current water demand estimates were lower than previous estimates because of water conservation efforts.

Ms. Conley asked if there should be a limit on the expansion of the Waukesha water supply service area. Mr. Biebel responded that the December 2008 report sets that limit. He indicated that the WDNR was expected to use the December 2008 report as the basis for any diversion application.

Ms. Conley asked if the environmental corridor lands in the Waukesha water supply service area were planned to be served. Mr. Biebel responded that such areas were planned to be preserved and that the current sewer service area rules would require that the corridor areas be preserved in open space uses.

Ms. Lewis referred to the first two comments on page 12 regarding water conservation programming. She indicated that the Public Service Commission of Wisconsin (PSC) and the Wisconsin Department of Natural Resources have the authority to require water conservation measures, and that such responsibility should be noted in the responses. Mr. Mathie noted that the Wisconsin Department of Natural Resources was planning to initiate rulemaking regarding water conservation measures. After further discussion, the Committee agreed by consensus to add text indicating PSC and WDNR roles in water conservation measures.

[Secretary's Note: In order to indicate the PSC and WDNR roles in water conservation, the text of the response to the first comment on page 12 has been expanded by the addition of the following sentences:

“The water conservation programs developed by the water utilities will have to be designed to meet the requirements of the Wisconsin Department of Natural Resources rulemaking process. This rulemaking process is being carried out to meet the requirements of the Great Lakes-St. Lawrence River Basin Water Resources Compact and Wisconsin Act 227, related groundwater protection legislation, and the September 2006 Report to the Governor on Water Conservation. The Wisconsin Act 227 requires that the WDNR establish statewide water conservation and efficiency goals and objectives and to establish rules specifying the requirements for

water conservation and efficiency for applicants for new or increased diversions. The WDNR is intending to initiate the water conservation rulemaking process during the second half of 2009, with completion expected in late 2010. The Public Service Commission of Wisconsin also considers any proposed water conservation measures during its review of water utility budgets and rates.”

In addition, the following sentence was added at the end on the response to the second comment on page 12:

“As noted above, the Public Service Commission of Wisconsin and the Wisconsin Department of Natural Resources have important roles in establishing water conservation programs.”]

Ms. Conley referred to the second comment and response on page 14 and asked if a map of the important recharge areas was to be included in the plan. Mr. Biebel indicated in the affirmative, noting that the map would be included in the description of the recommended plan which will be in the portion of Chapter X not yet reviewed.

Chairman Bauer noted that the map of important recharge areas would have to include a designation of a portion of those areas as potential additions to the environmental corridors.

Ms. Conley noted that the comment letter from the Alliance for the Great Lakes indicated that a diversion of Great Lakes water could not be provided if an adequate alternative source were available. Mr. Biebel responded, indicating that the Compact and State *Statute* language included provisions for cost and environmentally sustainable considerations. However, he noted that the issue raised would have to be considered in the application process as part of plan implementation. Mr. Duchniak noted that the State *Statute* covering the diversion included specific information on the criteria to be met for a diversion and relating to the term “adequate supply.”

There being no further questions or comments, pages 1 through 18 of Chapter X, “Recommended Water Supply Plan,” of SEWRPC Planning Report No. 52, *A Regional Water Supply Plan for Southeastern Wisconsin*, covering the introduction and public reaction to the preliminary plan, was approved as amended on a motion by Mr. Melcher, seconded by Mr. St. Peter, and carried unanimously.

#### **REVIEW OF APPENDIX L, “RESPONSES TO PRELIMINARY REGIONAL WATER SUPPLY PLAN REVIEW LETTERS RECEIVED WHICH WARRANTED SPECIFIC RESPONSES”**

Chairman Bauer asked the Committee to consider Agenda Item 5. He noted that all Committee members had received a copy of Appendix L, “Responses to Preliminary Regional Water Supply Plan Review Letters Received Which Warranted Specific Responses,” for review prior to the meeting. He indicated that this appendix had been referenced in the portion of Chapter X just reviewed. He indicated that Appendix L was provided to the Committee for information and no formal action by the Committee on this appendix was being requested. He asked, however, if there were any comments or questions regarding Appendix L.

Ms. Conley referred to the comment letter in Appendix L from Dr. William Holahan which discussed pricing structures for water. She indicated that was an important component in water conservation that should be emphasized. Mr. Biebel indicated that the plan included the rate structure changes as a component of some water conservation program levels. He indicated that the final recommended plan description to be provided in the remainder of Chapter X would include that description.

There being no further questions or comments, consideration of Agenda Item 5 was considered completed.

**REVIEW OF DOCUMENT ENTITLED *RECORD OF PUBLIC COMMENT—REGIONAL WATER SUPPLY PLAN FOR SOUTHEASTERN WISCONSIN*. THIS IS AN INFORMATIONAL ITEM**

Chairman Bauer asked the Committee to consider Agenda Item 6. He noted that all Committee members had received a copy of the document entitled *Record of Public Comment—Regional Water Supply Plan for Southeastern Wisconsin* for review prior to the meeting. He indicated that this document had also been provided to the Committee for informational purposes—albeit important information—in that it documents the proceedings of the public informational program carried out by the Commission, including the public comments received and staff responses thereto. He asked if there were any comments or questions on the *Record of Public Comment*.

Ms. Lewis asked if the *Record of Public Comment* would be amended to reflect the comments received on Chapter X, since the text of both were similar. After discussion, it was agreed to amend the *Record of Public Comment* to reflect the Committee comments and to publish the *Record* with a revised date.

There being no questions or comments, consideration of Agenda Item 6 was considered completed.

**OTHER BUSINESS**

Chairman Bauer then again noted that the completion of the final recommended water supply plan would have to be held in abeyance until completion of the socioeconomic impact analysis of the preliminary recommended water supply plan. That study is expected to be completed in November. Thus, Committee consideration and approval of a final recommended plan will have to await a presentation of the findings of the socioeconomic impact analysis. The Committee should, however, meet within the next 90 days to review the third technical report being produced under the planning program—Professor Cherkauer's report. That would leave one more meeting to be held in late November or early December to review the final plan, plan implementation chapters, and report summary chapters.

**DATE AND TIME OF NEXT MEETING**

After brief discussion, it was agreed that the next meeting of the Advisory Committee would be scheduled to be held at the Commission offices on Tuesday, September 15, 2009, beginning at 9:30 a.m. Chairman Bauer noted that the technical report on the groundwater budget indices and any other relevant items would be taken up at that meeting. [The date of the next meeting was subsequently revised to October 6, 2009.]

**ADJOURNMENT**

There being no further business to come before the Committee, on a motion by Mr. Bunker, seconded by Ms. Lewis, the meeting was adjourned at 11:56 a.m.

\* \* \*

**Exhibit A**

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**

W239 N1812 ROCKWOOD DRIVE • PO BOX 1607 • WAUKESHA, WI 53187-1607 •

**TELEPHONE (262) 547-6721**  
**FAX (262) 547-1103**

December 23, 2008

*Serving the Counties of:*

KENOSHA  
MILWAUKEE  
OZAUKEE  
RACINE  
WALWORTH  
WASHINGTON  
WAUKESHA



Mr. Daniel S. Duchniak, P.E.  
General Manager  
Waukesha Water Utility  
115 Delafield Street  
Waukesha, WI 53188

Dear Mr. Duchniak:

Pursuant to your August 13, 2008, letter request, the Southeastern Wisconsin Regional Planning Commission is hereby transmitting a copy of a document setting forth a delineation of a 20-year water supply service area attendant to the Waukesha Water Utility. This is intended to meet the requirements of the recently adopted Great Lakes Compact (2007 Wisconsin Act 227) related to the delineation of the water supply service area to be used for developing a water supply plan to support the application for obtaining a Lake Michigan water supply source. Your August 13th letter indicates that such action is being contemplated by the Utility.

The water supply service area set forth in the attached document is considered to be consistent with the planned Waukesha sewer service area as incorporated in the regional water quality management plan for southeastern Wisconsin and with the preliminary recommended regional water supply plan for southeastern Wisconsin currently being considered during a public informational period. It is assumed that public input and comment on the water supply service area will be carried out as part of the process for obtaining such comment on the City's water supply plan and related information needed to support your application.

We trust this responds to your request. Should you have any questions concerning this matter, please do not hesitate to contact us.

Sincerely,

Philip C. Evenson, AICP  
Executive Director

PCE/RPB/pk  
#141636 V1 - WAUK WATER SUPPLY TRANSMIT LTR

Enclosure (#141582)

cc: Mr. Eric Ebersberger, WDNR-Madison (w/enclosure)  
Ms. Gloria L. McCutcheon, WDNR-Milwaukee (w/enclosure)  
Mr. James D'Antuono, WDNR-Waukesha (w/enclosure)  
Mr. Larry Nelson, City of Waukesha (w/enclosure)  
Mr. Jeffrey L. Weigel, City of Pewaukee (w/enclosure)  
Mr. Thomas M. Grisa, City of Brookfield (w/enclosure)  
Mr. Richard M. Czopp, Town of Brookfield (w/enclosure)  
Ms. Sharon L. Leair, Town of Genesee (w/enclosure)  
Mr. Paul L. Kanter, Town of Delafield (w/enclosure)  
Mr. Robert J. Tallinger, Sr., Town of Waukesha (w/enclosure)

**WATER SUPPLY  
SERVICE AREA  
FOR THE CITY OF  
WAUKESHA AND  
ENVIRONS**

**WAUKESHA COUNTY  
WISCONSIN**

**WATER SUPPLY SERVICE AREA FOR  
THE CITY OF WAUKESHA AND ENVIRONS  
WAUKESHA COUNTY, WISCONSIN**

Prepared by the

Southeastern Wisconsin Regional Planning Commission  
W239 N1812 Rockwood Drive  
P.O. Box 1607  
Waukesha, Wisconsin 53187-1607  
[www.sewrpc.org](http://www.sewrpc.org)

December 2008

## SEWRPC Staff Memorandum

### RESPONSE TO REQUESTS BY THE CITY OF WAUKESHA WATER UTILITY TO DELINEATE THE 20-YEAR PLANNED WATER SUPPLY SERVICE AREA FOR THE UTILITY

#### INTRODUCTION AND BACKGROUND

By letter of August 13, 2008, the Waukesha Water Utility requested that the Southeastern Wisconsin Regional Planning Commission provide a delineation of the water supply service area potentially attendant to the Utility. A copy of that letter request is attached hereto as Exhibit A. The request was made to support an application being considered by the Utility to obtain a Lake Michigan water supply source. This memorandum, including the attached Map 1, is intended to respond to that request.

Under the recently adopted Great Lakes Compact (2007 Wisconsin Act 227), any utility seeking a new or increased withdrawal of water from the Great Lakes basin and diverting the water to any place outside the Great Lakes basin must register with the State and provide information to the State regarding the proposed withdrawal. That information includes a water supply plan which is to be based upon a proposed water supply service area. The Act specifies that, for the purposes of the water supply plans, an areawide water quality planning agency designated by the Governor under the Wisconsin Department of Natural Resources' areawide water quality management planning rule set forth in Chapter NR 121 of the *Wisconsin Administrative Code*, shall delineate the proposed water service supply areas for all of the public water supply systems in the planning area for which the agency is designated. The Southeastern Wisconsin Regional Planning Commission is such an agency. The Act also requires that the water supply service areas be consistent with the applicable approved areawide water quality management plan for the planning area. The regional agency may also provide regional needs assessments and other regional water supply planning information to persons preparing public water supply system plans.

The Southeastern Wisconsin Regional Planning Commission is currently preparing a regional water supply plan for the Southeastern Wisconsin Region.<sup>1</sup> That plan includes preliminary recommendations regarding planned water supply service areas. Those service areas were developed specifically taking into account consistency with the adopted regional water quality management plan.<sup>2</sup> In delineating the Waukesha Water Utility water supply service area included herein, the Commission drew upon the preliminary regional water supply plan and the adopted regional water quality management plan as last amended for the City of Waukesha in December 2007.

#### AREA DESCRIPTION

The 20-year water supply service area attendant to the Waukesha Water Utility is shown on Map 1. Also shown on Map 1 are the environmentally significant lands in the vicinity of the planned water utility service area. Those lands consist of environmental corridors, isolated natural resource areas, and small wetlands and surface waters. The adopted regional water quality management plan places great emphasis on protection of the environmentally

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<sup>1</sup>SEWRPC Planning Report No. 52, A Regional Water Supply Plan for Southeastern Wisconsin, *under preparation*.

<sup>2</sup>SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000; *Volume One*, Inventory Findings, September 1978; *Volume Two*, Alternative Plans, February 1979; *Volume Three*, Recommended Plan, June 1979, as last amended for the City of Waukesha in December 2007.



sensitive lands. Details on the delineation process and protection recommendations for these environmentally sensitive areas can be found in the City of Waukesha sewer service area plan.<sup>3</sup>

The existing Waukesha water supply service area includes—by definition—the entirety of City of Waukesha corporate limits plus small adjacent areas currently served by the Waukesha Water Utility. This area is shown in blue on Map 1. That area encompasses about 21.7 square miles, the majority of which (84 percent) is currently developed and served by public sewer and water supply systems. The year 2000 population residing in this area was about 65,700 persons. Under planned 2028 conditions, the resident population in the same area is expected to be about 74,500 persons, an increase of about 13 percent over the year 2000 population level.

Also shown on Map 1 in tan color, are areas in the vicinity of the City of Waukesha which could potentially be provided with municipal water supply service by the Waukesha Water Utility. That area encompasses about 17.4 square miles, of which about 9.9 square miles, or 57 percent, is currently developed. The remaining potential service area, comprising about 7.5 square miles, or 43 percent, is considered as potentially developable land. This area has been included in the planned water supply service area primarily to support the resolution of potential water supply problems associated with existing development, rather than to support new development. Under the regional land use plan, a very limited portion of this area is proposed to be developed to support the planned population level, as can be seen by the planned increase in resident population in the area. The year 2000 population residing in this area was about 9,800 persons. Under planned 2028 conditions, the resident population in the same area is expected to be about 11,300 persons, an increase of about 15 percent over the year 2000 population level. The developed areas in the potential service area are currently served by onsite sewage disposal systems and private wells. Conversion of those areas to municipal utility services would be expected only as local conditions and initiatives warrant such conversion. Absent a demonstrated need and local initiative, residents and businesses in these areas could be expected to remain on individual wells.

## **RELATIONSHIP TO REGIONAL WATER QUALITY MANAGEMENT PLAN/WAUKESHA SEWER SERVICE AREA PLAN**

The planned Waukesha water supply service area is considered to be fully consistent with the adopted Waukesha sewer service area, as documented in the Waukesha sewer service area plan.<sup>4</sup> Three differences between the planned water supply service area and the planned sewer service do exist. The three differences are as follows:

- Four areas which are remote from the main sewer service area have not been included in the water supply service area. These areas include three holding tank sewage disposal areas and a portion of the Village of Wales. The holding tank sewage disposal areas are businesses where holding tank wastes are conveyed to the City of Waukesha sewage treatment plant by truck. There is no reason to expect these four remote areas would ever be served by municipal water supply from the Waukesha Water Utility.
- There is an approximately 1.4-square-mile area located south of IH 94 along the Bluemound Road corridor between the Fox River and STH 164 which is included in the Waukesha sewer service area, but not the Waukesha water supply service area. While currently served by the City of Pewaukee municipal water supply system, the area is connected to the City of Waukesha sewerage system.

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<sup>3</sup>*SEWRPC Community Assistance Planning Report No. 100, 2nd Edition, Sanitary Sewer Service Area for the City of Waukesha and Environs, Waukesha County, Wisconsin, March 1999, as last amended in December 2007.*

<sup>4</sup>Ibid.

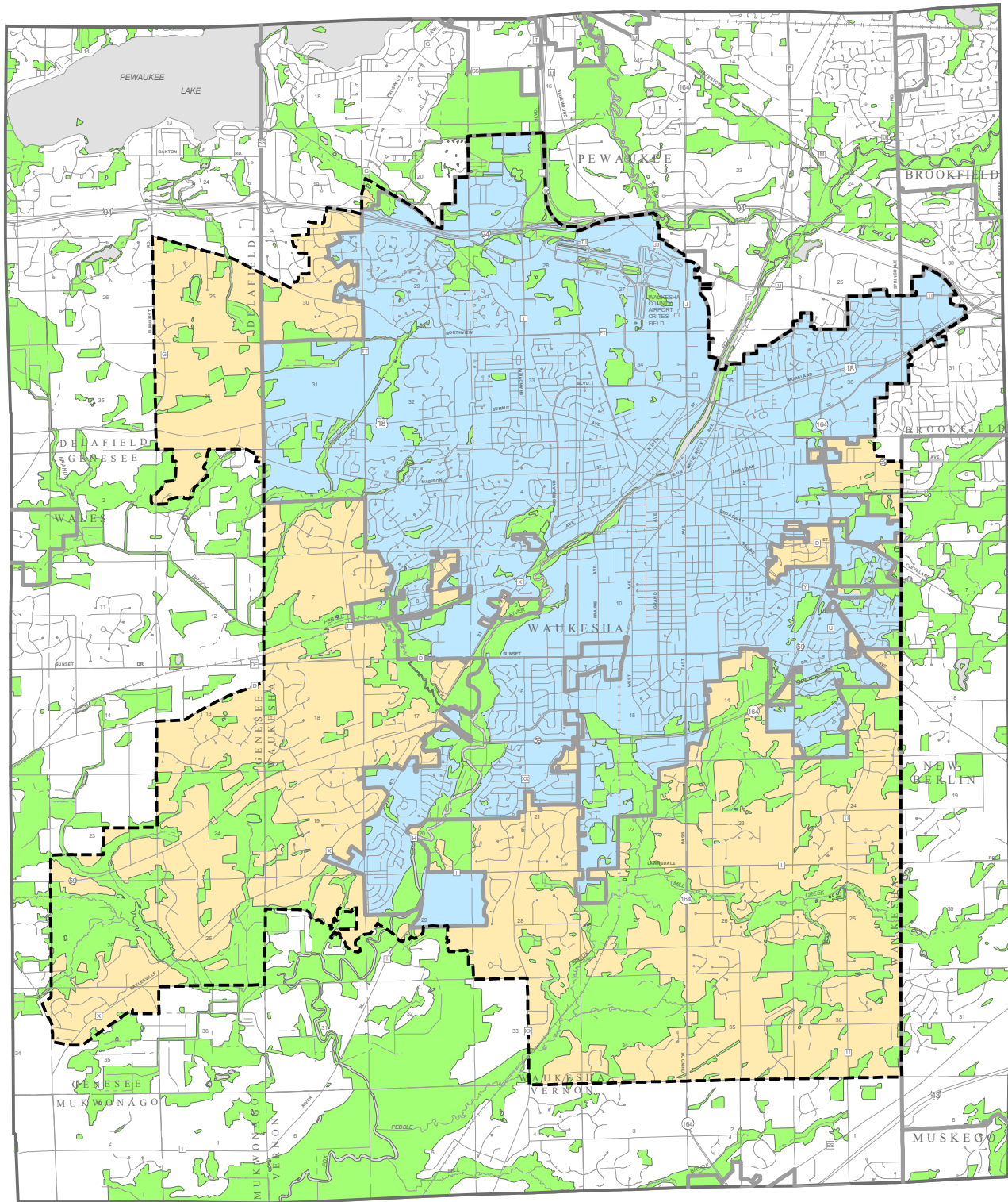
- An approximately 4.4-square-mile area in the Town of Genesee located along the STH 59 and CTH X corridor, immediately west of the Town of Waukesha which is included in the water supply service area, but not the Waukesha sewer service area. That area, which includes existing residential development and one large industry, is identified as a special well casing area by the Wisconsin Department of Natural Resources, due to groundwater bacterial contamination. During the regional water supply planning program, it was determined that this area should be added to the long-term municipal water supply service area in accordance with Wisconsin Department of Natural Resources staff recommendations.

Given due consideration to the foregoing, it is concluded that the Waukesha planned water supply service area is consistent with the City of Waukesha sanitary sewer service area plan as incorporated in the adopted regional water quality management plan.

\* \* \*

#141582 V1 - WAUK WATER SUPPLY STAFF MEMORANDUM  
300-5000  
PCE/RPB/pk  
12/23/08

# City of Waukesha Water Utility Planned Water Supply Service Area: 2028



CITY OF WAUKESHA PLUS ADJACENT AREAS CURRENTLY SERVED BY THE WAUKESHA WATER UTILITY



POTENTIAL WATER SUPPLY SERVICE AREAS WHICH COULD BE SERVED BY THE CITY OF WAUKESHA WATER UTILITY



ENVIRONMENTALLY SENSITIVE AREA CONSISTING OF ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL RESOURCE AREAS AND WETLANDS AND SMALL SURFACE WATERS

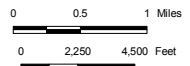


POTENTIAL PLANNED WATER SUPPLY SERVICE AREA BOUNDARY



2008 CITY AND VILLAGE BOUNDARIES

N



Source: SEWRPC  
October, 2008



Exhibit A

# Waukesha Water Utility

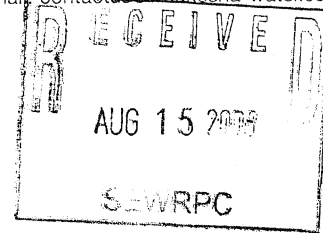
SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET  
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail: [contactus@waukesha-water.com](mailto:contactus@waukesha-water.com)

August 13, 2008

Mr. Philip Evenson  
Southeastern Wisconsin Regional Planning Commission  
P.O. Box 1607  
Waukesha, WI 53187-1607



Re: Water Service Area

Dear Mr. Evenson:

As you are aware, the City of Waukesha is considering an application for Great Lakes water to resolve its radium issues, bring our water system into final compliance with the radionuclide standard, and address the city's water needs for the foreseeable future. One requirement under the new water supply planning statute is to have the water supply service area delineated by an area-wide water quality planning agency.

The City of Waukesha Water Utility is requesting the Southeastern Wisconsin Regional Planning Commission (SEWRPC), as an authorized regional planning agency, to delineate a water service area.

We need this determination no later than December 31, 2008.

If you have any questions or need any further information, please contact me at (262) 521-5272 ext. 518.

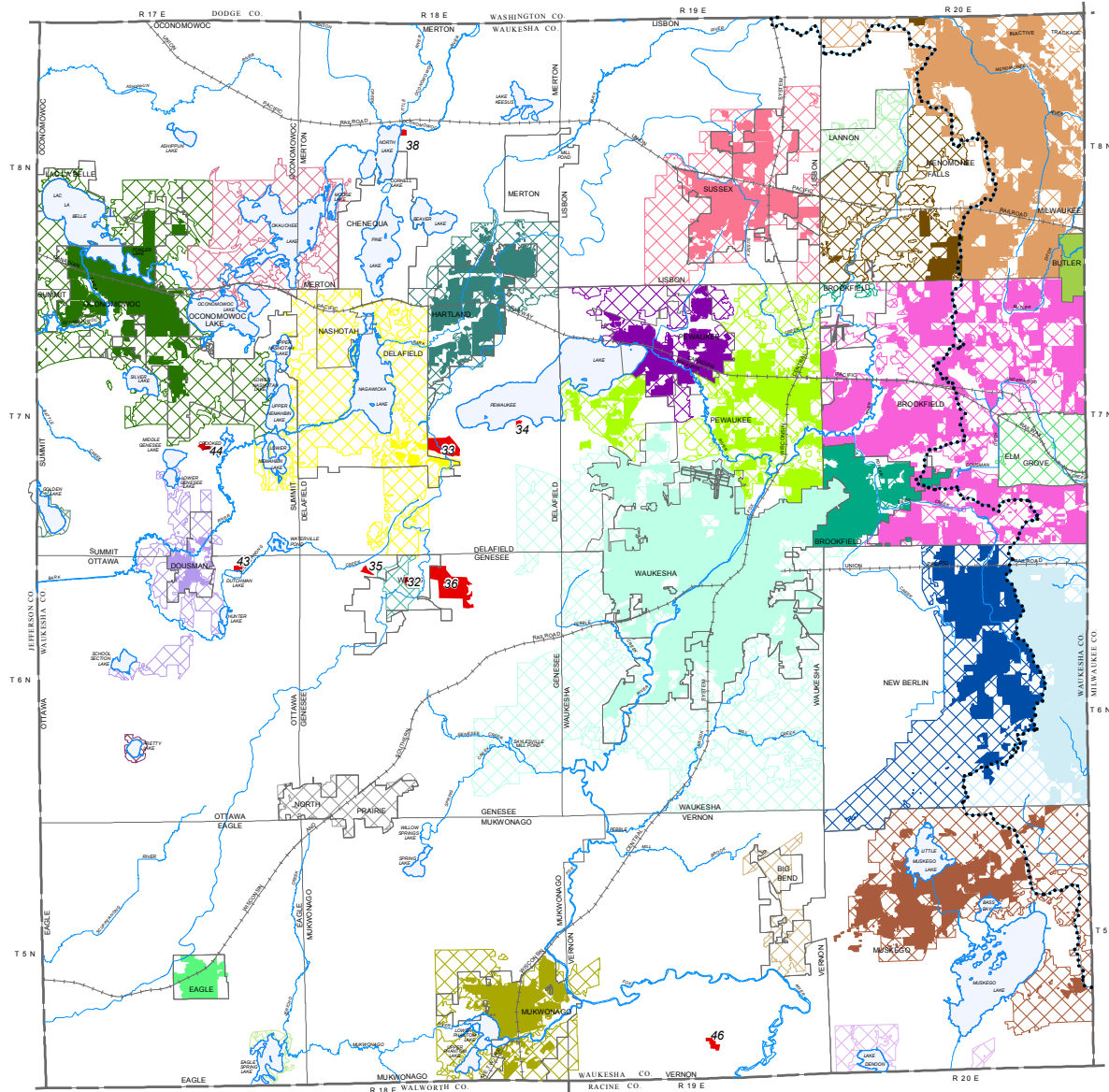
Sincerely,

Daniel S. Duchniak, P.E.  
General Manager

# Exhibit B

## Map IV-16

### PROJECTED AREAS SERVED BY MUNICIPAL AND OTHER THAN MUNICIPAL, COMMUNITY WATER SUPPLY SYSTEMS IN WAUKESHA COUNTY: 2035



GROUNDWATER-SUPPLIED SYSTEMS IN 2005-FUTURE  
RECOMMENDED SOURCES OF SUPPLY ARE NOT YET ESTABLISHED

- | 2005 | 2035 |   |
|------|------|---|
|      |      | CITY OF BROOKFIELD MUNICIPAL WATER UTILITY  |
|      |      | DELAFIELD MUNICIPAL WATER UTILITY   |
|      |      | CITY OF MUSKEGO PUBLIC WATER UTILITY  |
|      |      | CITY OF NEW BERLIN WATER UTILITY  |
|      |      | CITY OF OCONOMOWOC UTILITIES  |
|      |      | CITY OF PEWAUKEE WATER UTILITY  |
|      |      | CITY OF WAUKESHA WATER UTILITY<br>(PORTION OF NEW AREA IN TOWN OF GENESSEE<br>COULD BE A NEW TOWN UTILITY DISTRICT) |
|      |      | VILLAGE OF EAGLE MUNICIPAL WATER UTILITY  |
|      |      | DOUSMAN WATER UTILITY   |
|      |      | HARTLAND MUNICIPAL WATER UTILITY  |
|      |      | VILLAGE OF MENOMONEE FALLS WATER UTILITY  |
|      |      | MUKWONAGO MUNICIPAL WATER UTILITY   |
|      |      | PRAIRIE VILLAGE WATER TRUST   |
|      |      | VILLAGE OF PEWAUKEE WATER UTILITY   |
|      |      | SUSSEX VILLAGE HALL AND WATER UTILITY   |
|      |      | BROOKFIELD SANITARY DISTRICT NO. 4  |

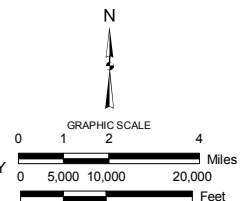
SURFACE WATER-SUPPLIED SYSTEMS IN 2005-FUTURE  
RECOMMENDED SOURCES OF SUPPLY ARE NOT YET ESTABLISHED

- | 2005 | 2035 |  |
|------|------|--|
|      |      | VILLAGE OF BUTLER PUBLIC WATER UTILITY   |
|      |      | VILLAGE OF MENOMONEE FALLS WATER UTILITY |
|      |      | CITY OF NEW BERLIN WATER UTILITY         |

NEW WATER SUPPLY SYSTEMS-FUTURE RECOMMENDED  
SOURCES OF SUPPLY ARE NOT YET ESTABLISHED

- | 2035 |  |
|------|--|
|      | VILLAGE OF BIG BEND                    |
|      | VILLAGE OF ELM GROVE                   |
|      | VILLAGE OF LANNON AREA                 |
|      | VILLAGE OF WALES AREA                  |
|      | TOWN OF EAGLE-EAGLE SPRING LAKE AREA   |
|      | TOWN OF MUKWONAGO-RAINBOW SPRINGS AREA |
|      | TOWN OF NORWAY-WIND LAKE AREA          |
|      | TOWN OF OCONOMOWOC-OKAUCHEE LAKE AREA  |
|      | TOWN OF OTTAWA-PRETTY LAKE AREA        |
|      | TOWN OF SUMMIT-GOLDEN LAKE AREA        |

- SUBCONTINENTAL DIVIDE
- AREA SERVED BY OTHER THAN MUNICIPAL, COMMUNITY SYSTEMS USING GROUNDWATER. IDENTIFICATION NUMBER CORRESPONDS WITH APPENDIX G.



Source: Water utilities and SEWRPC.

PRELIMINARY DRAFT