

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

DATE: March 20, 2007  
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
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.
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.
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
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
J. Scott Mathie (for Matthew Moroney)	Director of Government Affairs, Metropolitan Builders Association of Greater Milwaukee
George E. Melcher	Director, Kenosha County Department of Planning and Development
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
James Surfus	Senior Environmental Engineer, Miller Brewing Company
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

## **MEMBERS EXCUSED OR OTHERWISE ABSENT**

Kenneth R. Bradbury	Hydrogeologist/Professor, Wisconsin Geological and Natural History Survey
Douglas S. Cherkauer	Professor of Hydrogeology, University of Wisconsin-Milwaukee
David Ewig	Water Superintendent, City of Port Washington
Thomas M. Grisa	Director of Public Works, City of Brookfield
Thomas J. Krueger	Water and Wastewater Utility Director, Village of Grafton
Paul E. Mueller	Administrator, Washington County Planning and Parks Department
Dale R. Shaver	Director, Waukesha County Department of Parks and Land Use
George A. Torres	Director, Milwaukee County Department of Transportation & Public Works

## **GUESTS**

Daniel T. Feinstein	Hydrologist, U.S. Geological Survey
Paul G. Hayes	Mid Kettle Moraine Partners Group
Randall R. Kerkman	Administrator, Town of Bristol
Jess Kilgore	Student, UW-Parkside
Douglas J. Nelson	Water Supply and Wastewater Treatment Design Supervisor, Ruekert & Mielke, Inc.
Ben Wood	Engineer, Strand Associates, Inc.

## **STAFF**

Joseph E. Boxhorn	Senior Planner, Southeastern Wisconsin Regional Planning Commission
David M Jolicoeur	Deputy Chief, Transportation Division, Southeastern Wisconsin Regional Planning Commission
Catherine D. Madison	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 9:30 a.m. Roll call was taken by circulating an attendance signature sheet, and a quorum was declared present.

## **CONSIDERATION OF MINUTES OF THE MEETING OF JANUARY 23, 2007**

Chairman Bauer noted that copies of the minutes of the January 23, 2007, meeting of the Regional Water Supply Planning Advisory 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 reminded the Committee members that approval of the minutes would constitute approval of Chapter II, "Inventory of Existing Facilities," and pages 42 through 52 of Chapter VII, "Water Conservation," of SEWRPC Technical Report No. 43, *State-of-the-Art of Water Supply Practices*, and Chapters 1 through 6 of SEWRPC Technical Report No. 44, *Water Supply Law*. He noted that the approval would, of course, be subject to any comments received today on the minutes and the attachments thereto.

Ms. Conley referred to the second sentence of the fourth paragraph on page 3 of the minutes. She noted that her comment was intended to indicate that the MMSD was promoting stormwater infiltration practices and that the word "reducing" should be changed to "promotion of." Mr. Kiekhaefer noted that the wording as written was correct as the implied intent was to reduce sewer system infiltration. The Committee agreed that the staff should review the sentence and revise it as may be necessary to improve its clarity.

[Secretary's Note: The sentence in the fourth paragraph of the January 23, 2007, meeting minutes is hereby revised to read as follows:

"He reported that in this comment, Ms. Conley referred to the fact that the Milwaukee Metropolitan Sewerage District was carrying out a public education program intended to promote water conservation and to reduce clearwater infiltration and inflow into sanitary sewers."]

Ms. Conley referred to the last paragraph on page 3 of the minutes. She noted that the uses of captured rainwater may include domestic uses requiring softening; citing examples of such uses. Mr. Biebel responded that in southeastern Wisconsin, it was unusual to use captured rainwater for uses such as bathing, dishwashing, and laundry purposes. Chairman Bauer noted that the potential for cross connections was a concern when using nonpotable water for indoor household uses. Upon brief discussion, it was agreed that the staff should amend the text to accommodate, to the extend sound, Ms. Conley's comment.

[Secretary's Note: In order to accommodate the concept of rainwater not needing softening, the following sentence was added to the third paragraph on page 19 of Chapter VII:

"Rainwater also typically would not require softening if used for nonpotable indoor uses. Such use may, however, be accompanied by the possibility of cross connection with the potable supply and attendant health risks. Outdoor uses of rainwater are described in the following section."]

Mr. St. Peter referred to the revised text in the second full paragraph on page 14 of Chapter One of the water law report as provided in Exhibit B attached to minutes of the meeting held on January 23, 2007. He asked that the text regarding the Attorney General's opinion be expanded to include the "Pleasant Prairie Diversion." It was agreed to ask Ms. Kobza to expand the text as requested.

[Secretary's Note: In response to the request to expand the text on page 14 of Chapter One of the water law report as requested, a footnote has been added consisting of a direct quotation relating to the "Pleasant Prairie Diversion" from the Attorney General's opinion letter. A copy of the revised page 14 is attached hereto as Exhibit A.]

Mr. Rau referred to the second sentence in the second full paragraph on page 8 of the minutes and noted that the word “efficient” should be changed to “affluent.” The change was duly noted.

Ms. Conley referred to the fourth paragraph on page 11 and reported that the State of Minnesota had become the first state to have passed the legislation approving the Great Lakes Compact.

Mr. St. Peter referred to the last sentence in the second full paragraph on page 14 of Chapter One of the water law report as provided in Exhibit B attached to the minutes of the meeting held on January 23, 2007, stressing the importance of the referenced decision by the Wisconsin Department of Natural Resources (WDNR) regarding the definition of diversion. He asked that the report be kept open until that decision was made. Chairman Bauer indicated that the technical report on water law was scheduled to be published in the relatively near future. He noted, however, that the chapter of the planning report which summarizes the findings of the technical report on water law would not be published until near the end of the year, and that the planning report chapter could be drafted to include the decision concerned if a decision was indeed rendered by that time.

Mr. Biebel reported that Dr. Cherkauer was unable to attend the meeting. However, he had provided a comment relative to the revised page 69 of the water supply law report which was included in Exhibit G of the January 23, 2007, meeting minutes. Dr. Cherkauer’s comment related to the fifth sentence in the second full paragraph on page 69. He noted that the sentence indicated a broader review by the WDNR than was their charge. He recommended that the sentence be revised to read as follows:

“Similarly, the WDNR is authorized to consider the anticipated drawdown effects from a new public water system well on other ~~nearby~~ high-capacity wells, large springs, and certain designated streams ~~and the environment~~ before approving the construction of a new well.<sup>43</sup>”

Mr. Biebel indicated that because the sentence constituted a paraphrase of NR 811.13(4)(j) of the *Wisconsin Administrative Code*, it could not be changed in the manner suggested. However, he did agree that, in practice, the WDNR approvals of new large-capacity wells were typically limited to the three items noted by Dr. Cherkauer. He indicated he would work with the report author, Ms. Kobza, to address Dr. Cherkauer’s comment.

[Secretary’s Note: In response to Dr. Cherkauer’s comment, Ms. Kobza reviewed the text involved, including checking with the WDNR staff involved in reviewing municipal well projects. In this regard, it is noted that the report section being considered is related to municipal well development. Upon review, it was concluded that the WDNR staff does, in fact, have the authority, as part of well facility design review, to consider the anticipated drawdown effects from a new municipal well on nearby wells and the environment. This is the typical practice where such impacts are considered likely to occur. These requirements do not apply to nonmunicipal wells. Accordingly, the fifth sentence for the second full paragraph on page 69 of the water supply law report has been revised to read as follows:

“The information which is required by the WDNR for new community high-capacity wells includes an engineering report which may be required to include information on anticipated drawdown effects from the proposed public water system well on other nearby wells and the environment.<sup>43</sup> This requirement for community wells does not apply to the WDNR review of

proposed new noncommunity high-capacity wells, under which the permitting requirements are limited to consideration of the impact on other community high-capacity wells, large springs, and certain designated streams, as discussed in Chapter Three.”]

There being no further corrections or additions, the minutes of the meeting of January 23, 2007, were approved as amended, on a motion by Ms. Anderson, seconded by Mr. Melcher, and carried unanimously.

### **CONSIDERATION OF CHAPTER X, “APPLICATION OF STANDARDS AND COST DATA,” OF SEWRPC TECHNICAL REPORT NO. 43**

Chairman Bauer then asked the Committee to consider Agenda Item 3. He noted that all Committee members had received a revised copy of Chapter X, “Application of Standards and Cost Data,” of SEWRPC Technical Report No. 43 for review with the material for the previous meeting. However, time had not permitted review of the chapter at that meeting.

He then asked Mr. Nelson of Ruckert & Mielke, Inc., to review the chapter with the Committee on a page-by-page basis. Chairman Bauer noted that Mr. Nelson had worked with Mr. Schultz in preparing Chapter X, and that Mr. Schultz could not attend the meeting. The following questions were raised, comments made, and actions taken in the course of the review.

Ms. Conley referred to the section entitled “water quality” on page 3. She suggested that the importance of source water quality protection be discussed. Mr. Nelson noted that such a discussion had been included in Chapters III and IV for surface water and groundwater, respectively. Upon brief discussion, it was agreed to add a reference to the importance of source water protection.

[Secretary’s Note: In response to Ms. Conley’s recommendations, the following sentences were added following the second full paragraph on page 3:

“As noted above, the quality of the source water is an important determinant in the selection of water treatment processes. The Wisconsin Department of Natural Resources has conducted source water assessments for all of the municipal water supply systems within the Region. Such assessments include information on source water quality and protection measures.”]

Ms. Conley referred to the mechanical screening technology in Table X-2. She asked if the technology concerned would remove Zebra mussels from the supply stream. Mr. Nelson replied that it would not. He indicated that chemical controls were typically required to control Zebra mussels. Ms. Lewis added that the control methods used were designed to keep the mussels off of the intake structures, rather than to remove them from the water by screening. She noted that the Quagga mussel was also an issue in this respect. Upon brief discussion, it was agreed to add control measures for mussels to Table X-2.

[Secretary’s Note: In response to the recommendation to specifically include mussel control, a line has been added to Table X-2 for chemical treatment and/or velocity control. The revised table is included in the revised version of Chapter X attached to these minutes.]

Ms. Lewis referred to the section entitled “Conservation Impacts” on page 3 and recommended that both the supply and demand sides of water conservation be included. Mr. Bunker agreed, noting that both aspects of water conservation had been well described in Chapter VII which had been reviewed at the last meeting. It was agreed that the water conservation section on page 3 should be revised to refer to both the supply and demand sides of water conservation.

[Secretary’s Note: In accordance with the recommendation to incorporate the concepts of both supply side and demand sides of water conservation, the text of the section on conservation impacts on page 3 was revised. The revised text is included in the revised version of Chapter X provided with these minutes.]

Mr. St. Peter referred to Table X-3 and noted that the land requirements for the membrane filtration process were noted qualitatively to be the same as conventional filtration. He indicated that was not the case in that membrane filtration generally requiring less land area. It was agreed to revise the table in this regard.

[Secretary’s Note: In response to the land requirement discrepancy, Table X-3 has been revised to indicate the land requirements for membrane filtration to be “moderate.”. The revised table is included in the revised version of Chapter X provided with these minutes.]

Mr. St. Peter referred again to Table X-3, noting that membrane filtration should be categorized as being similar or better than conventional filtration with regard to its ability to accommodate variations in influent quality. It was agreed to revise the table in this regard.

[Secretary’s Note: In response to the comment on influent quality capability, Table X-3 has been revised to indicate the ability of membrane filtration to handle influent quality variations as “good.” The revised table is included in the revised version of Chapter X provided with these minutes.]

Mr. Bunker referred to the heading “Noncost Consideration for Infrastructure Related Items” on page 6. He indicated that the term “noncost” was misleading, as many of the items described had impacts on costs. Upon brief discussion, it was agreed to change the word “noncost” to “other” in the heading on page 6.

[Secretary’s Note: In order to eliminate the reference to noncost considerations, the section heading and related text on page 6 and the title of Table X-3 have been revised. The revised text and table heading is included in the revised version of Chapter X provided with these minutes.]

There being no further questions or comments, on a motion by Mr. St. Peter, seconded by Mr. Holschbach, and carried unanimously, Chapter X, “Application of Standards and Cost Data,” of SEWRPC Technical Report No. 43, *State-of-the-Art of Water Supply Practices*, was approved as amended.

**CONSIDERATION OF CHAPTER SEVEN, “SUMMARY OF WATER SUPPLY LAW AS APPLIED TO SOUTHEASTERN WISCONSIN,” SEWRPC TECHNICAL REPORT NO. 44, WATER SUPPLY LAW**

Chairman Bauer then asked the Committee to consider Agenda Item 4. He noted that all Committee members had received a copy of Chapter Seven, “Summary of Water Supply Law as Applied to Southeastern Wisconsin,” of Technical Report No. 44, *Water Supply Law*, for review prior to the meeting. He then asked Mr. Biebel to review the chapter with the Committee on a page-by-page basis. The following questions were raised, comments made, and actions taken in the course of the review.

Ms. Conley referred to the first sentence of the second full paragraph on page 1 and asked if any “public utility” could build water supply facilities or if only water utilities could do so. It was agreed to ask Ms. Kobza to respond to this question.

[Secretary’s Note: Ms. Kobza reviewed the issue in question and reported that the *Statute* involved refers to a “public utility,” meaning any public utility and therefore did not limit the consideration of water supply facilities to water utilities but extended such authority to wastewater management and electric power utilities. No change to the text was written as proposed.]

Ms. Lewis referred to the second and third paragraphs on page 2, noting that the terms “diversion” and “seeking to divert” were used. She indicated that these terms had great importance and recommended that the text be revised to clarify the definition of these terms, and the related historic interpretations. It was agreed to ask Ms. Kobza to consider the request.

[Secretary’s Note: The concerns raised were reviewed by Ms. Kobza. Her written response is as follows:

*“Response: I corrected the second paragraph to replace the word “diversion” with the word “withdrawal.” That is the word used in the statute. I did not make a change in the third paragraph. Section 30.18 and sec. 281.35(4) both require DNR approval for a water loss. Section 30.18 requires approval of a diversion which would result in a 2 MGD water loss, and section 281.35(4) requires approval for any “withdrawal” of water that results in a new or increased water loss of more than 2 MGD. So DNR approval is required for a 2 MGD water loss regardless of whether it occurs as a result of a diversion or a withdrawal. Given that, I think it would be confusing to discuss that the term “divert” is not defined in sec. 30.18, because ultimately all that matters is whether there is a 2 MGD water loss.”]*

Mr. Biebel referred to the third paragraph on page 3 and noted that Mr. St. Peter had asked for additional text on the Attorney General’s Pleasant Prairie diversion opinions, along with the New Berlin opinion in Chapter One. He recommended, and it was generally agreed to add similar text to Chapter Seven.

[Secretary’s Note: In response to the request to expand the information on the Attorney General’s opinion, a footnote has been added to the paragraph in question which is now on page 107. The footnote is included in the revised version of Chapter Seven of the water law report attached to these minutes.]

Ms. Conley referred to the fourth sentence of the second paragraph on page 9. She asked whether or not the term “impact on the environment” could be listed as a consideration which might be considered by a court. It was agreed to ask Ms. Kobza to consider adding “environmental impact” as a consideration.

[Secretary’s Note: The recommended addition to the text of the second paragraph now on page 113 was reviewed by Ms. Kobza. Her written response is as follows:

*“Response: The language in the Report comes from the Restatement, not my own judgment. Given that, I don't believe the requested language should be added. However, I do personally agree that impact on the environment is a consideration which might be considered by a court when considering the rights of the public.”*

The following sentence was added to the second paragraph now on page 113:

“Although not specifically noted in the Restatement, another factor the court might consider is the impact on the environment.”]

Ms. Lewis referred to the last sentence in the first partial paragraph on page 14 and recommended that the first word “is” be revised to “was directed to” and that the second word “is” be dropped. It was agreed to make that change subject to Ms. Kobza’s agreement.

[Secretary’s Note: The wording changes recommended were made. The revised text is included in the revised version of Chapter Seven of the water law report provided with these minutes.]

Mr. Biebel noted that Dr. Cherkauer had requested that a change be made to the third paragraph on page 21—now page 125. The first change was to replace the word “would” with the word “might” in the first sentence. He also requested that the third sentence be revised by replacing the term “prohibiting the installation of wells” with “protecting the groundwater resources.” Mr. Czarkowski objected to the second change, indicating that the text properly reflected the different opinions on the matter. After further discussion, it was agreed to make the first change, but not the second change, subject to Ms. Kobza’s agreement.

[Secretary’s Note: The recommendation for change and the logic of the change are described in Dr. Cherkauer’s memo which is attached hereto as Exhibit B. The recommendations of Dr. Cherkauer were reviewed with Ms. Kobza. The first change was made. In addition, in the third line of the last paragraph on page 125, the term “prohibiting the installation of wells” was replaced with the term “limiting the installation of wells.”]

There being no further questions or comments, on a motion by Mr. Melcher, seconded by Mr. Rau, and carried unanimously, Chapter Seven of Technical Report No. 44, *Water Supply Law*, was approved as amended.

## **CONSIDERATION OF CHAPTER IV, “ANTICIPATED GROWTH AND CHANGE AFFECTING WATER SUPPLY IN THE REGION,” OF SEWRPC TECHNICAL REPORT NO. 52**

Chairman Bauer asked the Committee to consider Agenda Item 5. He noted that all Committee members had received a copy of Chapter IV, “Anticipated Growth and Change Affecting Water Supply in the Region,” of SEWRPC Planning Report No. 52 for review prior to the meeting. Chairman Bauer stressed the importance of the chapter as a basis for the preparation and evaluation of alternative water supply plans for the Region. Then he asked Mr. Biebel to review the chapter with the Committee on a page-by-page basis. The following questions were raised, comments made, and action taken in the course of the review.

Mr. Czarkowski referred to the section on plan design year 2035 municipal water supply service areas on page 2. He asked if there was a distinction made between private water supply systems and other than municipal, community systems in the section beginning on page 2 and in the remainder of the chapter. In response, Mr. Biebel indicated that no such distinction was being made in the section beginning on page 2 and the following sections treating with population and household levels and land use. However, he noted that in the county-specific forecast water use descriptions, existing “other than municipal, self-supplied community systems” which were expected to remain in service to the design year were identified.

Mr. Bunker asked for a clarification on the exception noted for the Village of North Prairie Water Trust in the third full paragraph on page 2. Mr. Biebel responded that it was intended to note that the Village of North Prairie Water Trust was being treated as if it were a municipal water supply utility, since it has the characteristics of a municipal utility. Upon discussion, it was agreed that the staff should clarify the reference to the North Prairie system.

[Secretary’s Note: The fourth line in the third full paragraph on page 2 was revised to read as follows:

“In addition, the expanded Village of North Prairie water system, currently categorized as a water trust, is being reported on as a municipal system, since it has characteristics similar to a municipal water utility.”]

Ms. Conley referred to the section on design year 2035 water supply service areas on page 2 and asked if the basis of including a significant number of lake-oriented communities, such as the Village of Lac La Belle, as planned municipal water service areas could be attributed to well contamination problems. She expressed reservations that all of the areas indicated would be served by municipal water service by the design year. Mr. Biebel responded that the basis for the recommendation lies within the regional land use plan and was based largely upon the density of development concerned. Mr. Melcher indicated that the recommendations in the regional land use plan that areas of the Region developed at urban densities be provided with a full range of urban facilities and services, including water supply, represented sound public policy and reflected a long-term future condition that would protect and promote the public health, safety, and general welfare. Mr. Biebel noted that the planning horizon was nearly 30 years into the future, yet some of the recommendations were already being implemented. He cited as an example the Town of Salem area in Kenosha County as a lake-oriented community which was planning to initiate municipal water service in a portion of the Town. Chairman Bauer noted the Village of Elm Grove as another example of an area for which the provision of municipal water supply had been a long-standing recommendation in the regional plans, and for which steps had recently been taken to implement the

recommendation in at least a part of the Village. Upon discussion, it was agreed that no changes in the text were required or should be made in the report.

Mr. Yunker referred to the employment data summarized in Table IV-3 and displayed graphically in Figure IV-1. He noted that the projected 2035 employment level for Milwaukee County reflected a greater increase when compared to the 2004 level than when compared to the 2000 level because of a decline in employment between the years 2000 and 2004. He indicated that this employment reduction may have been related to reductions in water use over that same period. He indicated further that there was a reasonable amount of growth projected in employment, population, and households for Milwaukee County compared to the 2004 levels, since the regional land use plan envisioned new development and redevelopment both within as well as outward from the existing urban centers.

Mr. Rau noted the envisioned increase in municipal service areas which entailed expansion of public water supply service to existing development currently served by private water supply systems, and questioned the probability of this occurring. He used the City of Mequon as an example, noting the provision of municipal water supply service to the existing urban areas in Mequon would be difficult to implement and would be carried out only with a strong governmental commitment. He noted that any requirement to use a municipal supply would be met with opposition in some areas. Mr. Rau indicated that he would see if there were data available for Mequon regarding the abandonment of private wells in relation to connections to the public supply system. If available, he said he would provide that data to the Commission staff. Mr. Melcher noted that while a homeowner with a properly functioning well may object to having to connect to a public system, a homeowner with private well problems may welcome the availability of a municipal system. Mr. Czarkowski noted as another example, the Town of Lyons Sanitary District No. 2 area of Walworth County where there were identified groundwater contamination problems and some residents have been required to drill wells into the sandstone aquifer at a cost of about \$25,000. He noted that such residents would have little incentive to connect to a municipal system once the new well was drilled. Mr. Melcher noted that on the other hand, such residents might have been better served by a public system, and may have welcomed connection to such a system before a costly new well was drilled. He noted further that there will always be conflicting individual situations when a municipal system is proposed. Mr. Biebel noted that the plan should be viewed as similar to a “buildout” plan with regard to providing public supply to the existing urban-density land uses with private wells, and that the plan would be designed to be staged in this regard.

Mr. Bunker noted that fire protection was an important consideration in defining municipal water service areas. He noted that, if a municipal water supply is available, connection is sometimes required for fire insurance purposes. Chairman Bauer added that another issue related to groundwater contamination, noting the ongoing studies at the Marshfield Clinic relating bacterial- and viral-related sicknesses to private water supply systems.

Mr. St. Peter referred to the third sentence in the first full paragraph on page 20, noting that the word “was” ahead of the word “applied” should be replaced with the word “and.” The change was duly noted.

Ms. Lewis referred to the comment column in Table IV-10 on page 21. She recommended, and it was agreed, that the importance of infrastructure expansion avoidance should be noted in this column.

[Secretary’s Note: In response to the recommendation to add comments on the importance of infrastructure expansion avoidance, Table IV-10 has been revised. A copy of revised Table IV-10 is included in the revised version of Chapter IV attached to these minutes.]

Mr. Biebel referred to the section on forecasts of water use for Kenosha County on page 22, noting that similar sections followed for the other six counties. He reported that the Commission staff was in the process of preparing graphical representations of the forecast municipal water use from 2000 through 2035, compared to the actual water use over the period 1997 through 2005. He noted that examples of such graphic displays for Kenosha and Waukesha Counties had been distributed to the Committee. The Commission staff proposes to complete similar graphic displays for the other counties for incorporation into the chapter. He noted that the graphics and related text would then be provided to all Committee members for further review and comment with the minutes of the meeting.

Mr. Biebel also noted that the staff proposed to add text to the third introductory paragraph for each county, providing quantitative information on the portion of the increase in forecast water use that due to the potential conversion of private well supplied facilities to publicly supplied facilities as the urban service areas expanded; and to note the change in water use from 2005 and 2035, as well as from 2000 to 2035. He noted that those changes would be provided by way of a revised version of Chapter IV, and would be subject to Committee review at the next meeting.

Mr. Biebel referred to Map IV-4 on page 23. He noted that two changes needed to be made in the map. The first was to revise the planned water service area north of STH 50 just west of IH 94 showing it as included in the City of Kenosha service area; the second was to accommodate an additional area west of IH 94 in the vicinity of STH 165 which was presently in the process of being added to the Kenosha sewer and water service area. Mr. St. Peter agreed that these changes were needed, and noted that the second area described was related to a potential major development—the proposed Abbott Laboratory development. He asked that the added water use associated with that area be factored into the projections. In answer to a question by Mr. St. Peter, Mr. Biebel said the demand forecast procedure was described in the chapter, and noted, for example, that if 400 acres of proposed industrial land were added to a service area that would result in an increase in average water use of 0.6 million gallons per day, based upon a unit demand of 1,500 gallons per acre per day and an increase in pumpage of about 0.8 million gallons per day, the difference being attributed to unaccounted-for water and water use in production. Mr. St. Peter noted he would review the data when the agreed-upon revisions have been completed.

[Secretary's Note: The section on forecast water demand for Kenosha County has been revised to reflect the proposed Abbott Laboratory development. These revisions are included in the revised version of Chapter IV attached to these minutes.]

Ms. Conley asked how water lost from the system would be factored into the forecasts. Mr. Biebel referred to Table IV-12, and noted that for both the years 2000 and 2035, the unaccounted-for water was included in the average day and maximum day pumpage values. He noted that the difference between the average day water use—or sales—and water pumpage included unaccounted-for water and water used in production.

Mr. Winkler commented that the graphs showing the water use projection and the actual water use would be useful. He supported including the graphs in the report as proposed. He asked if the projections would be reviewed in light of the graphic comparison of the projection to the actual use. Mr. Biebel indicated that such a review would indeed be made.

Mr. Yttri indicated he had some concerns regarding the forecasts for the City of Oak Creek utility which he would like to discuss with the staff after the meeting.

[Secretary's Note: In response to Mr. Yttri's concerns, the forecast data for the City of Oak Creek were revised to use by customer communities and the City itself. The revision is included in the revised version of Chapter IV attached to these minutes.]

Mr. Bunker noted that a water conservation reduction had been applied to the forecast water use and pumpage estimates. He indicated that the reduction was more significant for some of the groundwater-supplied utilities, particularly on a maximum daily pumpage basis, than for other groundwater-supplied and Lake Michigan-supplied utilities. He asked if this would affect fire flow capability, and, if so, was the reduction appropriate. Mr. Biebel responded that the reductions in forecast maximum day pumpage, as opposed to reduction in average day pumpage, estimates attributable to water conservation were intended to primarily reflect outdoor water use reductions which may result in reduced infrastructure needs. He noted that such infrastructure needs typically were more significant in the groundwater-supplied communities. He indicated it was not intended to compromise fire-fighting capabilities.

[Secretary's Note: Because of the importance of this issue, text has been added to the end of the section on water demand forecast procedures. The revised text is included in the revised version of Chapter IV attached to these minutes.]

Ms. Lewis asked if the forecasts of water use included in the county-by-county sections included water sales of a utility located within one county to another utility located in another county. Mr. Biebel indicated that they did not. A discussion followed, upon the conclusion of which it was agreed to add information on the total demands for utilities which provide water to multiple utilities on a wholesale or retail basis.

[Secretary's Note: Tabular data and associated text has been added to the county forecast of water use sections illustrating the estimated total water use and forecasts for utilities which provide water to customers outside of their own retail service area. The revised tabular data and associated text are included in the revised version of Chapter IV attached to these minutes.]

Mr. Bunker noted that the Village of Sturtevant water utility had become a retail customer of, the City of Racine Water and Wastewater Utility. Ms. Anderson noted the consolidation of the utilities serving the Village of Caledonia. Upon brief discussion, it was agreed that these changes be reported by the use of footnotes.

[Secretary's Note: In order to document the changes to the utilities in Racine County, footnotes have been added to the appropriate tables on pages 37, 39, and 40. The footnotes are included in the revised version of Chapter IV attached to these minutes.]

In answer to a question by Mr. Czarkowski, Mr. Biebel indicated that the number of other than municipal public and nonpublic self-supplied systems was less than the number which currently exist, because it was assumed that such private systems would become part of a public system as the urban service areas expanded.

[Secretary's Note: Mr. Czarkowski subsequently provided to the Commission staff additional comments regarding his concern with the locational information for the public and nonpublic self-supplied wells. In addition, text has been added to

the section on water demand forecast procedures and in the county-specific forecast of water use sections to clarify this issue. The revised text is included in the revised version of Chapter IV attached to these minutes.]

In answer to another question by Mr. Czarkowski, Mr. Biebel indicated that areas designated by the WDNR within which special well casing were required because of groundwater contamination were not explicitly considered in the delineation of the urban service areas. However, he referred to Map IV-2 and noted that some of the proposed municipal service areas did include special well casing areas, such as the Lannon area. He noted that some of the special casing areas were located beyond the planned urban service areas and, thus, municipal services were not recommended to be extended to those outlying areas. Mr. Czarkowski indicated that he would provide to the Commission staff recommendations for the inclusion of other selected areas in the urban service areas in response to groundwater quality issues.

[Secretary's Note: Mr. Czarkowski provided a memorandum documenting additional areas to be considered for municipal water supply service. A copy of that memorandum is attached hereto as Exhibit C. The additional areas recommended to be considered have been mapped and, in some cases, added to the municipal water service areas. The revised maps and text are included in the revised version of Chapter IV provided with these minutes.]

Mr. Winkler referred to Map IV-12 on page 43, and suggested that the map and Appendix G be checked to ensure that the Grand Geneva Resort and the Hillmoor Golf Club were included, as both these institutions have wells used for irrigation purposes.

[Secretary's Note: The Grand Geneva Resort and the Hillmoor Golf Club are shown on Map IV-3 and in Table G-6 as self-supplied irrigation systems.]

Mr. Biebel then briefly reviewed Appendix F which provided additional detail on the calculation of forecast water use and pumpage for each utility; and Appendix G which provided selected characteristics of the self-supplied water supply systems expected to be in existence in 2035.

Ms. Conley noted that ski areas appeared in both Table G-4 which provides information on recreation and institutional water supply systems, and Table G-6 which provides information on irrigation systems. Mr. Biebel noted that where the primary use of the well system concerned was snowmaking, the system was included in Table G-6; while where the use was more varied, the water supply system was included in Table G-4.

Mr. Helmuth commented that the WDNR data base which was used as the primary source of data for the self-supplied systems lacked currency and was in the process of being updated. He noted that, particularly, the data on pumpage may be uncertain as no recent reporting was required. Upon brief discussion, it was agreed to add a footnote to Appendices E and G acknowledging the status of the source data.

[Secretary's Note: The following footnote has been added to Appendices E and G:

“The data presented in this appendix are derived largely from the Wisconsin Department of Natural Resources data bases. The State data lack currency since no periodic reporting is required for most of the self-supplied water systems. As of 2007, the Wisconsin Department of Natural Resources was in

the process of updating the data base concerned. Updated information on the self-supplied public and nonpublic water supply systems can be obtained from the WDNR staff as this information becomes available.”]

There being no further questions or comments, on a motion by Mr. Bunker, seconded by Ms. Lewis, and carried unanimously, Chapter IV, “Anticipated Growth and Change Affecting Water Supply in the Region,” of SEWRPC Planning Report No. 52, *A Regional Water Supply Plan for Southeastern Wisconsin*, was approved as amended.

## **CORRESPONDENCE**

Chairman Bauer indicated that there was no correspondence to report that was addressed to the Committee. He indicated that there was, however, some correspondence that was addressed to the Commission that should be reported to the Committee. He asked Mr. Yunker to report on that correspondence.

Mr. Yunker reported that the Commission had received two letters concerning the membership of the Committee. One letter was from Mr. Patrick Marchese who indicated that he was resigning from the Committee. Mr. Yunker noted that Mr. Marchese had represented the Public Policy Forum on the Committee, and that the Forum had, during 2005 and early 2006, been involved in the conduct of a water study. That study had been completed and the Public Policy Forum no longer had an active project concerned with water supply. Consequently, there was no longer reason for the Forum to be represented on the Committee. Mr. Yunker also reported that the Commission had received a letter from the Racine Water and Wastewater Utilities General Manager, Mr. Keith Haas, who had replaced Mr. Thomas Bunker in that position upon Mr. Bunker’s retirement. The letter indicated that Utilities desired that Mr. Bunker continue to serve as the Racine Water and Wastewater Utilities representative on the Committee. Chairman Bauer thanked Mr. Bunker for his willingness to continue to serve on the Committee, noting that his input had been most helpful and constructive.

## **DATE AND TIME OF NEXT MEETING**

After brief discussion, the next meeting of the Advisory Committee was tentatively scheduled to be held in the Commission offices on Tuesday, May 15, 2007, beginning at 9:00 a.m. Chairman Bauer noted that the conceptual alternative plans would be presented at that meeting, along with Chapter VI, which was intended to provide a summary of the findings of the water supply law study.

## **ADJOURNMENT**

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

\* \* \*

## Exhibit A

customers and returns it to the Basin. By adopting this interpretation, Wisconsin limited the number of withdrawals it believed were subject to WRDA approvals. While other Great Lakes States reportedly disagreed with Wisconsin's interpretation, none challenged it.

In a December 27, 2006 letter, however, the Wisconsin Attorney General disagreed with the WDNR's interpretation of the term "diversion". The Attorney General opined that the ordinary meaning of the term "diversion" is "the act or an instance of diverting from a course, activity, or use," and that whether a diversion exists is to be measured as of the first act taken regarding the water.<sup>34</sup> Under this interpretation, all withdrawals or transfers of water from a lake constitute a diversion because the withdrawal itself - even with return flow - results in the taking of water from its natural course. The Attorney General further opined, however, that although all withdrawals of water from the a lake would constitute a diversion, only diversions of water "for use outside the Great Lakes basin" are covered by WRDA. Therefore, any withdrawal of water for use outside of the Great Lakes basin would constitute a diversion covered by WRDA, regardless of return flow.<sup>35</sup>

The impact of the Attorney General's December 27, 2006 letter is unclear. Adoption of the Attorney General's interpretation of the term "diversion" could potentially halt the ability of the WDNR to grant approvals for new withdrawals of Lake Michigan water with return flow. New Berlin has recently requested such approval from the WDNR, and this request could potentially be denied under the Attorney General's interpretation unless WRDA approval was received from the other Great Lakes Governors. On the other hand, if the Attorney General's interpretation of the term "diversion" is not adopted and the WDNR continues to adhere to its interpretation of what is a diversion under WRDA, the Attorney General suggests that could be detrimental to uniform and effective enforcement of WRDA and to interstate cooperation on Great Lakes matters.<sup>36</sup> As of the date of this Report, the WDNR has not publicly announced how it will address this issue.

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<sup>34</sup>December 27, 2006 Letter from Wisconsin Attorney General Peggy A. Lautenschlager to Senator Robert Wirch, page 7.

<sup>35</sup>Id. at 8. The Attorney General's informal opinion also indicates that only Akron, Ohio has an approved diversion under WRDA. With regard to the Lake Michigan water diversion to Pleasant Prairie, Wisconsin, the Attorney General states: "Although three Great Lakes governors did not approve of the Town of Pleasant Prairie's proposed diversion of Lake Michigan water in 1990 that required return flows to the lake, other governors did. . . Although the legality of the diversion has been questioned, there was never a concession that the diversion was not subject to WRDA." Id. at 11.

<sup>36</sup>Id. at 5.

## Exhibit B

The same problem that we have resolved in the text of the “Water Supply Law Report” appears again in Chapter Seven (“Summary of Water Supply Law). On page 21, third paragraph, the text seems to misrepresent the Attorney General’s opinion and definitely misrepresents the Town of Richfield ordinance which prompted that opinion. The ordinance does not prohibit the installation of wells within Town boundaries. Instead it seeks from developers a land use design that keeps impacts to ground water levels below a specified standard. The intent of that ordinance remains to direct future development to be consistent with the Town’s land use plan and to have net water demands that are within the sustainable limits of the available ground-water supply.

I ask, therefore, that the text of the third paragraph be modified in two ways:

1. In line two, change the word “would” to “might”, so the text will read “adopt a groundwater protection ordinance which might limit the ability of a party...”
2. I would also ask that the second last sentence be modified to more accurately reflect the Attorney General’s stated opinion by changing it to read ”Given the conflicting analysis demonstrated by the courts and the Wisconsin Attorney General regarding a municipality’s authority to adopt ordinances protecting the ground water resources within its borders, this issue...”. [The changed text is underlined.]

Thank you for your consideration of this matter in my absence.

Doug Cherkauer

**Biebel, Robert P.**

**Exhibit C**

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**From:** Czarkowski, Charles - DNR [Charles.Czarkowski@Wisconsin.gov]  
**Sent:** Friday, March 23, 2007 2:30 PM  
**To:** Biebel, Robert P.  
**Cc:** Volz, Rhonda R - DNR; Helmuth, Jeffrey A - DNR; Schaver, Sharon L - DNR; Shurilla, Kevin J - DNR; Fuja, Francis G - DNR; Boushon, Lee H - DNR  
**Subject:** Year 2035 Municipal Service For Contaminated GW Areas

Bob,

This is follow-up on my comments at Tuesday's Water Supply Plan Committee meeting regarding SEWRPCs draft predictions of year 2035 municipal service areas. I asked if these were delineated in part to serve areas of known groundwater contamination. You replied that the draft projections did not consider groundwater contamination. I said I would review DNR's well drilling restricted areas and make suggestions that might accommodate contaminated aquifer areas. Well construction in such areas is restricted and in some cases so costly as to affect sound development.

Following are my suggestions for expanding some municipal service areas to accommodate future development in contaminated aquifer areas. I realize that many of these suggestions may prove unfeasible since expansion of utility service depends on economic and political factors, as well as engineering and public health. Yet I believe SEWRPCs planning document should suggest the best desirable outcomes especially since these may become legally enforceable guidelines.

Fortunately, the draft already predicts new utility service to roughly 30% of known contaminated aquifer areas. Here are 17 additional suggestions to completely address known aquifer contamination in the SEWRPC area.

1. **Prochnow Landfill, City and Town of Cedarburg, Ozaukee County Map IV-8, Special Drilling Area #27, :** New homes in this area or within 1200 feet of landfill must either connect to municipal water (not available thru entire area) or drill a sandstone aquifer well and sample for VOCs. Increased pumpage from aquifer may alter gw flow of contamination plume. Suggestion: *Extend the NW edge of the City of Cedarburg W & L Utility service area in Section 21 westerly to Horns Corners Road and southerly to Sherman Road.*
2. **Lime Kiln Landfill & Quarry, Village and Town of Grafton, Ozaukee County Map IV-8, Special Drilling Area # 28:** New homes in this area or within 1200 feet of landfill must either connect to municipal water (not available thru entire area) or drill a sandstone aquifer well and sample for VOCs. Increased pumpage from aquifer may alter gw flow of contamination plume. Suggestion: *Extend the Village of Grafton Water and Wastewater utility service area along its southern edge to include all of Section 25 to Lakefield Road.*
3. **Village of Theinsville and Icke & Bublitz Landfills, City of Mequon, W1/2 of NE1/4 Sec 15, Ozaukee County Map IV-8:** New wells within 1200 feet of this landfill must obtain variance requiring grouted casing. Water quality is aesthetically poor due to high sulfides and iron. Suggestion: *Extend northwest edge of WE Energies-Village of Theinsville utility service area to Highland Road to include the east 1/2 of Section 15.*
4. **Town of East Troy Landfill, Town of East Troy, Walworth County Map IV-12, Special Drilling Area #39 a&b:** New wells in this area or within 1200 feet of landfill must case to the top of bedrock to avoid landfill leachate. Suggestion:  
*Extend Village of East Troy utility service easterly from airport to include SW1/4 Section 15; NW1/4 Section 22; and N1/2 of Section 21.*

**Biebel, Robert P.****Exhibit C**

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3. **Village of Theinsville and Icke & Bublitz Landfills, City of Mequon, W1/2 of NE1/4 Sec 15, Ozaukee County Map IV-8:** New wells within 1200 feet of this landfill must obtain variance requiring grouted casing. Water quality is aesthetically poor due to high sulfides and iron. Suggestion: *Extend northwest edge of WE Energies-Village of Theinsville utility service area to Highland Road to include the east 1/2 of Section 15.*
4. **Town of East Troy Landfill, Town of East Troy, Walworth County Map IV-12, Special Drilling Area #39 a&b:** New wells in this area or within 1200 feet of landfill must case to the top of bedrock to avoid landfill leachate. Suggestion:  
*Extend Village of East Troy utility service easterly from airport to include SW1/4 Section 15; NW1/4 Section 22; and N1/2 of Section 21.*

5. **Town of Lyons, Walworth County Map IV-12, Special Drilling Area under development:** An unacceptable number of wells in the Village of Lyons are contaminated with bacteria and nitrates due in part to past failed septic systems, now replaced by sewer. Due to limited aquifer production, very deep and costly wells are needed to obtain safe water. Suggestion: *Extend the Town of Lyons service area to include all of the Village of Lyons. The existing Country Estates Sanitary District #1 has capacity to serve this area. It is possible that extending this existing utility near Brook Road would be preferred rather than forming a new, separate Town utility. In that case the entire corridor along Hospital Road in Sections 4, 5, 8 and 9 connecting the Villages of Lyons and Springfield would also logically be served.*
  
6. **City of Lake Geneva / Town of Lyons, Walworth County Map IV-12, Special Drilling Area under development:** Salt contamination of the shallow aquifer from improper storage requiring deep aquifer wells along Hwy 120 just northeast of Lake Geneva's utility service area. This area currently has low development yet the plume extends easterly toward Geneva National. Suggestion: *Extend the Lake Geneva Utility service area 1/2 mile northeast of Hwy 120 along Hwy 120 to include the NW 1/4 of Section 30 and the S 1/4 of Section 19, Town of Lyons.*
  
7. **City of West Bend / Town of Barton, Washington County Map IV-16, Special Drilling Area #40:** Volatile Organic Chemicals from industry and solid waste handling contaminated the shallow aquifer along Hwy 45 to the Milwaukee River just north of West Bend. Suggestion: *Extend the West Bend service area northerly in the Town of Barton to include the S 1/2 of Section 27 and all of Section 34 along a corridor from the Milwaukee River to the section center lines.*
  
8. **City of West Bend / Town of Barton, Washington County Map IV-16, Special Drilling Areas #41 a&b:** Vinyl Chloride from landfill leachate requires wells in a wide area west of West Bend to connect to public water (not available thru entire area) or drill 900' sandstone aquifer wells. Suggestion: *Extend the City of West Bend service area on its western edge to include all of sections 3, 4, 9 and 10 Town of Barton; plus entire Sections 15 and 16, Town of West Bend.*
  
9. **Village of Rockfield, Washington County Map IV-16, Special Drilling Area #42 a&b:** Thin soil, high bedrock, and an old quarry combine with bacteria and high nitrates from septic and gasoline and VOC contamination from spills. Rockfield School has an ongoing nitrate violation. Wells on the east end of the Village require deep grouted wells to avoid shallow aquifer contamination. Suggestion: *Consider a new sanitary district or utility to serve Rockfield area extending 1/4 mile east of Division Road.*
  
10. **Village / Town of Germantown, Washington County Map IV-16, Special Drilling Area #43:** Gasoline contaminated shallow aquifer requires minimum 150' grouted casing. Suggestion: *Extend Village of Germantown service area on southwest edge to include all of area north of Lannon Road / Hwy Y in Section 32.*
  
11. **Village / Town of Germantown, Washington County Map IV-16, Special Drilling Area #44/55:** Gasoline contamination of shallow bedrock aquifer required 220 feet of grouted casing in southern Happy Hollow subdivision. Added development expected along Hwy Q corridor downgradient of plume. Suggestion: *Extend Village of Germantown service westerly to include Hwy Q corridor (north side) in all of Section 31.*
  
12. **Town of Richfield, Washington County Map IV-16, Special Drilling Area #45:** Gasoline and VOC contamination of shallow aquifers in the densely developed corridor along Hwy 175 and Holy Hill Roads, and extending north thru the old Village of Richfield. Richfield school and businesses required to monitor and replace wells with deeper grouted casings. New subdivisions developing. Suggestion: *Create a new Town of Richfield Water Utility in Sections 12 & 13 and the old Village area, possible a consecutive system from Village of Germantown.*
  
13. **Town / Village of Jackson, Washington County Map IV-16, Special Drilling Area 46 a&b & c:** Shallow bedrock, karst sinkholes, agricultural runoff and gasoline combine to contaminate a wide area of the dolomite aquifer in the vicinity of the High School and along Division Road from Hwy 60 south beyond Mill Road. 220 feet of grouted casing is required in core affected area. Suggestion: *Extend Village of Jackson service area on east and southeast edges to include all of Section 21, the NW1/4 Section 27 and the N1/2 Section 28.*

14. **Town of Polk / Village of Slinger, Washington County Map IV-16, Special Drilling Area 47:** Two landfills near the Village of Ackerville have contaminated several wells with VOCs. New wells within 1200 feet must be drilled to more than 210 feet with grouted casing. Residents suffer aesthetically poor high iron water and have long complained. This is a developing area along the Hwy 175 / Hwy 164 corridor. Suggestion: *Extend the Village of Slinger service area farther southeast to include the Hwy 175 - Lovers Lane corridor thru the Village of Ackerville.*

15. **Saylesville-Town of Genesee / City of Waukesha, Waukesha County Map IV-16, Special Drilling Areas #52 a&b:** Shallow bedrock and septic systems have contaminated shallow aquifer with bacteria and nitrates. 200 foot minimum well casing requirement in a rapidly developing suburban area. Suggestion: *Extend the City of Waukesha service area to include all of Sections 23, 24, 25, 26 Town of Genesee; or a Town of Genesee utility consecutive to Waukesha.*

16. **Town of Lisbon / Village of Sussex, Waukesha County Map IV-16, Special Drilling Areas #53 a&b and #54/44:** Surveys revealed that >45% of wells in the southeast region of the Town of Lisbon are contaminated with coliform bacteria due to shallow bedrock, or suffer turbidity and water level problems from quarrying activities. Special drilling requirements have been in effect since the 1950s and led to the mandatory creation of the Village of Sussex water utility. Rapidly expanding suburban development. Suggestion: *Extend the Village of Sussex service area; or create a separate Town of Lisbon utility possibly consecutive to Sussex or Pewaukee, to include entire Sections 22, 25, 26, 27, 28, 33, 34, 35 and 36, Town of Lisbon.*

17. **Town / City of Muskego, Waukesha County Map IV-16, Special Drilling Area #67 a&b:** Landfill leachate with VOCs has contaminated shallow aquifers and extra casing depth and monitoring is required within 1200 feet and beyond. Suggestion: *Extend western edge of City of Muskego service area to include all of Sections 17 and 18; and also the developable north halves of Sections 19 and 20, Town of Muskego.*