MINUTES OF THE ELEVENTH MEETING
SEWRPC REGIONAL WATER SUPPLY PLANNING ADVISORY COMMITTEE

DATE: January 23, 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  General Manager, Water and Wastewater Utility, City of Racine
Douglas S. Cherkauer  Professor of Hydrogeology, University of Wisconsin-Milwaukee
Michael P. Cotter  Director, Walworth County Land Use and Resource Management Department
Charles A. Czarkowski  Regional Water Program Expert, Wisconsin Department of Natural Resources, Southeast Region
Franklyn A. Ericson  Manager, Environmental Operations & Central Services, S.C. Johnson & Son, Inc.
Thomas M. Grisa  Director of Public Works, City of Brookfield
Jeffrey A. Helmuth  Hydrogeologist Program Coordinator, Wisconsin Department of Natural Resources, Madison
Andrew A. Holschbach  Director, Ozaukee County Planning, Resources, and Land Management Department
Eric J. Kiefer  Manager, North Shore Water Commission
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
George E. Melcher  Director, Kenosha County Department of Planning and Development
Matthew Moroney  Executive Director, Metropolitan Builders Association of Greater Milwaukee
Paul E. Mueller  Administrator, Washington County Planning and Parks Department
Michael P. Rau  General Manager, We Energies-Water Services
Edward St. Peter  General Manager, Water Utility, City of Kenosha
Dale R. Shaver  Director, Waukesha County Department of Parks and Land Use
Audrey Templeton  Corporate Environmental Engineer, Miller Brewing Company
(for James Surfus)
Daniel S. Winkler  Director of Public Works and Utilities, City of Lake Geneva
MEMBERS EXCUSED OR OTHERWISE ABSENT

Kenneth R. Bradbury  Hydrogeologist/Professor, Wisconsin Geological and Natural History Survey
Daniel S. Duchniak   General Manager, Waukesha Water Utility, City of Waukesha
Charles P. Dunning   Hydrologist, U.S. Geological Survey
David Ewig   Water Superintendent, City of Port Washington
Thomas J. Krueger   Water and Wastewater Utility Director, Village of Grafton
Jeffrey Musche   Administrator/Clerk, Town of Lisbon
George A. Torres  Director, Milwaukee County Department of Transportation & Public Works
Steven N. Yttri  General Manager, Water and Sewer Utility, City of Oak Creek

GUESTS

Jonathan Grove   Student, UW-Parkside
Paul G. Hayes   Mid Kettle Moraine Partners Group
Randall R. Kerkman   Administrator, Town of Bristol
Janielle Kirk   Student, UW-Parkside
Lawrie J. Kobza   Partner, Boardman Law Firm
Kamron E. Nielson   Project Engineer, Ruekert & Mielke, Inc.
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.
Benjamin Wood  Engineer, Strand Associates, Inc.

STAFF

David M Jolicoeur   Deputy Chief, Transportation Division, Southeastern Wisconsin Regional Planning Commission
Catherine D. Madison  Planner, 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.

Chairman Bauer then introduced a new Committee member—Mr. Eric J. Kiefer—who is replacing Mr. Roger C. Johnson as the Manager of the North Shore Water Commission. He noted that Mr. Johnson had retired earlier this month. He welcomed Mr. Kiefer.

Chairman Bauer reported that Ms. Lawrie Kobza, the author of the water supply law report to be reviewed under Agenda Item 6 was scheduled to arrive about 10:00 a.m. He suggested that upon her arrival, the Committee stop the deliberations on whichever agenda item was under consideration, and take
up Agenda Item 6. He noted that Agenda Item 6 could take considerable review time and he would like to complete that item at today’s meeting when Ms. Kobza was in attendance. There were no objections to this suggestion.

CONSIDERATION OF MINUTES OF THE MEETING OF DECEMBER 5, 2006

Chairman Bauer noted that copies of the minutes of the December 5, 2006, 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 III, “Existing Water Supply Conditions in the Region,” of SEWRPC Planning Report No. 52, *A Regional Water Supply Plan for Southeastern Wisconsin*, and of pages 1 through 35 of Chapter VII, “Water Conservation,” of SEWRPC Technical Report No. 43, *State-of-the-Art of Water Supply Practices*. He noted that the approval would, of course, be subject to any comments received today on the minutes and the attachments thereto.

Mr. Biebel reported that Ms. Conley would be unable to attend the meeting and had submitted written review comments on the agenda items, including some which related to the minutes under consideration. Mr. Biebel noted that copies of Ms. Conley’s comments had been distributed to the Committee.

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

Mr. Biebel referred to Ms. Conley’s written comments, noting that the first comment referred to the first paragraph on page 3 of Chapter VII of SEWRPC Technical Report No. 43. He reported that in this comment, Ms. Conley referred to the fact that the Milwaukee Metropolitan Sewerage District was promoting water conservation, as well as reducing infiltration, measures as a means of potentially improving sewerage system efficiency and, potentially, water quality. She noted that cleaner source water was an important objective. Mr. Biebel indicated that he had reviewed the paragraph in question and that he believed that it was not inconsistent with Ms. Conley’s comments, but rather, indicated that water conservation purposes and drivers were different for water supply systems with Lake Michigan as a source of supply and water supply systems with groundwater as a source of supply. He also noted that the impact on water quality of the Lake Michigan source of supply would not be appreciably impacted by water conservation efforts, since sewerage system bypassing in the Milwaukee area occurred relatively infrequently and only during periods of wet weather, and because the small changes in base sewage flows which could be achieved by water conservation would be negligible in terms of peak wet weather flows that caused overflows. Accordingly, he recommended, and the Committee concurred, no changes to the paragraph in question.

Mr. Biebel called attention to Ms. Conley’s comments with respect to the last sentence on page 19, recommending that the phrase “or captured rainwater” be added after the words “Lake Michigan.” Mr. Biebel noted that the practical uses of captured rainwater in the Region would not typically require
softening and that in that context, the recommended change would not be proper. Mr. Melcher agreed, indicating that captured rainwater would likely be used for outdoor purposes, such as garden watering. After some discussion it was generally agreed not to make the requested change. Ms. Lewis referred to the same sentence on page 19 and recommended that the word “eliminate” be replaced by the word “reduce,” since Lake Michigan water is considered moderately hard and experience has shown that when Lake Michigan water is supplied for an area which once was served by groundwater, a significant number of customers continue to soften their water. The change was agreed to.

Mr. Grisa referred to the first full paragraph on page 3. He noted that the text of that paragraph and others in the chapter which referred to the distinction between water supply systems with a groundwater source and a surface water source were not consistent, and there remained an issue with the location being the source of the distinction, rather than the source water. After further discussion, it was agreed that the staff would review and refine the text as needed.

[Secretary’s Note: Upon review of the text of the first full paragraph on page 3 and the second paragraph on page 50, the text has been revised to read as follows:

Revised first paragraph on page 3:

“The need for, and implications of, water conservation within the seven-county Southeastern Wisconsin Region differs markedly between those areas utilizing Lake Michigan as a source of supply, and those areas utilizing groundwater as a source of supply. In general, but with some exceptions, the areas utilizing Lake Michigan as a source of supply are located east of the subcontinental divide. Areas utilizing groundwater as a source of supply are located both east and west of the subcontinental divide. In addition, there is a distinction to be made relative to water conservation programs between water users served by private, self-supplied water systems, and those water users supplied by municipal water supply systems. Those areas of the Region served by Lake Michigan supplied systems have access to a bountiful source of high-quality water. Those areas of the Region served by groundwater-supplied systems must be concerned with the continued ability of the groundwater reservoirs to meet the increasing demands placed upon them by urbanization, and, in the absence of wise use, this ability may become a constraint on the continued social and economic development of the Region. The general need for, and implications of, conservation will, therefore, be different within the areas of the Region served by Lake Michigan-supplied systems, and those areas served by groundwater supplies. The need for, and implications of, conservation will also differ in the particulars concerned, such as the characteristics of the individual public and private water supply systems involved. The implications of conservation will be quite different for a water supply system utilizing Lake Michigan as a source of supply and operating at well below design capacity, than for a public water supply system utilizing groundwater as a source of supply and operating at design capacity. The manner in which the spent water supply is disposed of will also affect the need for conservation. In areas utilizing Lake Michigan as a source of supply, the spent water supply is largely returned to the source, along with additional sewerage system clearwater infiltration and inflow, the return flows will typically exceed in total the amount of water supplied. In the areas using groundwater as a source of supply, the spent water is typically not returned to the source of supply. Accordingly, the development of water
conservation measures must recognize the differing needs for conservation within the Region.”

Revised second paragraph on page 50—now page 53:

“These two views, or concepts, of water conservation will have quite different applicability within the Southeastern Wisconsin Region. In areas of the Region which utilize Lake Michigan as a source of supply, the concept of water conservation is focused primarily on increasing the efficiency of the water supply system and reducing the cost of water production, and may often be expected to constitute the more rational of the two approaches. For Lake Michigan supplied utilities, the water supply is abundant and the spent water is largely returned to the source. The focus, then, of the water conservation programs is on reducing unaccounted-for water as a part of the total system pumpage. This focus on system efficiency is further supported by the fact that some of the major water supply systems concerned are operating well below existing capacity, and the need to attract economic development to the core urbanized areas concerned by offering, among other inducements, an adequate water supply and attractive water rates. This approach provides water supply customers with the most favorable cost structure, an important consideration in the current era in which public officials are trying to minimize all municipal costs. However, in situations in which a Lake Michigan utility may be experiencing increasing demand that is approaching the existing infrastructure capacity, the second concept of reducing water use on the demand side will likely have merit. In areas of the Region which utilize groundwater as a source of supply, considerations related to the sustainability of that source and infrastructure needs, may become the driving forces for the institution of water conservation programs designed to reduce the demand for water along with water system efficiency measures.”]

There being no further corrections or additions, the minutes of the meeting of December 5, 2006, were approved as amended, on a motion by Ms. Anderson, seconded by Mr. Rau, and carried unanimously.

CONSIDERATION OF PAGES 42 THROUGH 52 OF CHAPTER VII, “WATER CONSERVATION,” 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 the section of Chapter VII, “Water Conservation,” of SEWRPC Technical Report No. 43 for review prior to the meeting.

Chairman Bauer reminded the Committee that all of Chapter VII, except the section on water conservation impacts and the summary section, had been reviewed and approved at previous meetings. Chairman Bauer noted that those sections which had not been reviewed had followed page 35 in the version of the chapter reviewed at the December 5, 2006, meeting. He noted that the chapter had been revised in response to the Committee comments made at the previous meeting. Those changes included the addition of an example water conservation program as recommended by the Committee. He reported that the sections which were not previously reviewed now began on page 42 of the revised version of the chapter provided to the Committee. He then asked Mr. Schultz to review the remaining sections 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.
Mr. Moroney asked if a map of the Waterloo, Ontario, area could be included. Mr. Biebel indicated that the staff would attempt to obtain and include such a map.

[Secretary’s Note:  A map of the Waterloo, Ontario, area has been added to the chapter. A copy of the map is included with the revised version of the portion of Chapter VII provided with these minutes.]

Mr. Shaver referred to the third paragraph on page 42 and asked if the river system which provided a portion of the Waterloo water supply was within the Great Lakes basin. Mr. Biebel indicated in the affirmative, noting that the river concerned was the Grand River, which was tributary to Lake Erie. He noted that the Waterloo area was located about equidistant from Lakes Erie and Ontario, and somewhat further from Lake Huron.

[Secretary’s Note:  The following sentence has been added following the fifth sentence in the third paragraph on page 42:

“The surface water source is the Grand River, a tributary of Lake Erie.”]

Mr. Bunker questioned the cost estimate of $400 million set forth on page 42 for a water supply connection to serve the City of Waterloo from either Lake Erie or Lake Huron. He compared that cost to the cost of the pipeline from Brown County to Manitowoc which was reported to be about $100 million and was about 30 miles long. Mr. Biebel responded that the Waterloo pipeline would be designed to serve a much larger population than the Brown County pipeline, noting that the Region of Waterloo design population was over 700,000 people, and that the distance involved was 65 miles. Given the larger population to be served and the longer transmission distance involved, the cost estimate given in the text appears reasonable when compared to the Brown County-Manitowoc facility cost.

Mr. Bunker referred to the first sentence of the fourth paragraph on page 45 and indicated that the implication that water conservation was a means of reducing the cost of water supplied to customers was misleading. He indicated that, in fact, the cost of water would typically increase as a result of implementing water conservation measures because the majority of the costs are fixed and must be covered by increased charges for a reduced demand. After further discussion, it was agreed to revised the subject sentence.

[Secretary’s Note:  In response to the recommendations, the first sentence of the fourth paragraph on page 45—now page 46—has been revised to read as follows:

“Implementation of water conservation measures which reduce water demand may be expected to reduce some of the costs associated with water production, such as power and chemical costs. However, most of the water production costs are relatively fixed and may not be expected to be significantly affected by water conservation measures.”]

Mr. Winkler referred to Table VII-17 and noted that the program costs would be more useful if they were presented on a per customer or per capita basis. He indicated the costs were relatively high on an absolute basis and could not readily be put into local perspective. It was agreed to add per capita or per customer unit cost data to Table VII-17.
In response to a question by Ms. Templeton, Mr. Biebel indicated that the costs concerned were the municipal staff costs for program monitoring and oversight, as opposed to materials and external services costs which were categorized as program costs. It was agreed to clarify the table in this regard.

[Secretary’s Note: Table VII-17 has been expanded to include per capita costs and to clarify the types of costs included in the two columns. Revised Table VII-17 is included in the revised version of the portion of Chapter VII provided with these minutes.]

Mr. Grisa referred to the second paragraph on page 46 and asked if the conservation program examples were applied to actual or hypothetical communities. Mr. Schultz replied that the examples were based upon budget and water use data for three actual communities utilizing Public Service Commission of Wisconsin (PSC) data.

Mr. Grisa referred to Table VII-8 on page 48 and recommended that the annual water savings be expressed in terms of percent of total water use, as well as in terms of the amount of water. Ms. Lewis recommended that the net annual cost savings also be expressed in terms of percent of total budget. Ms. Lewis further recommended that the term “model” with respect to the water conservation program concerned, be revised as it connotates a desirable program or objective. These suggested changes were concurred by the Committee.

[Secretary’s Note: The text on pages 46 through 49—now pages 47 through 49—has been revised to change the term “model water conservation program” to the term “example water conservation program options.” In addition, Tables VII-18 and VII-19 have been revised as directed by the Committee. The revised text and tables are included in the revised version of the portion of Chapter VII provided with these minutes.]

Mr. Grisa referred to Tables VII-18 and VII-19 and noted that there were no accounting for potential savings in wastewater treatment and conveyance costs. He asked if that should be noted. Mr. Bunker referred to that the text beginning on the seventh line of the first partial paragraph on page 46 indicating a potential savings in wastewater treatment costs would be attendant to water conservation program implementation. He disagreed with that statement, noting that typical water carriage assumptions for wastes were factored into the existing sewerage system designs. He stated that sewerage systems do not necessarily work more efficiently with less water given that the amount of waste material to be conveyed would be unchanged with water conservation. Mr. Winkler indicated that his experience was that there would be some savings in wastewater treatment costs due to water conservation. After further discussion, it was agreed that the staff should revise the text to address the conflicting concerns expressed.

[Secretary’s Note: The sentence beginning the tenth line of the first partial paragraph on page 46—now page 47—has been revised and additional text has been added at the end of the same paragraph to address the conflicting concern raised. The revised text is included in the revised version of the portion of Chapter VII provided with these minutes.]

Mr. Holschbach indicated that in his opinion, the three levels of water conservation programs were not adequately described in the report text. Mr. Biebel indicated that the components of the program were more fully described in Appendix VII-1. After some discussion, it was agreed to expand the text to add information describing the three levels of water conservation programs concerned.
In answer to questions by Mr. Winkler, Mr. Biebel indicated that a table would be added to the text listing the various conservation measures that could be considered by utilities operating in the Region.

Mr. Grisa referred to the text on pages 48 and 49 regarding water conservation impacts. He recalled that Mr. Rau had previously observed that water rate structures may have little or no impacts on water use by more-efficient households. He noted that such households may be expected to continue to use water as they were accustomed to, despite any additional costs associated with increased water rates. He recommended, and it was agreed, to add a comment to that effect to the text.

Mr. Grisa referred to the second to last sentence in the first full paragraph on page 50. He recommended, and it was generally agreed, to revise the sentence to indicate the second view of water conservation is to reduce the demand for water.

Ms. Conley’s memorandum raised a general issue regarding water conservation. The issue relates to the potential for a water conservation strategy which provides increased storage for fire flow purposes, thereby reducing water transmission system capacity requirements. The issue raised is addressed in both Chapter VIII, “Transmission and Storage Facilities,” and in Chapter IX, “Design Standards.” A review of those chapters indicates that current design practices call for a careful evaluation and optimization of storage and transmission capacities and facilities. Storage facilities are needed to provide adequate amounts of water during peak periods of demand, while transmission facilities are needed to convey adequate amounts of water to meet Insurance Service Office and other fire-fighting needs and standards. The specific consideration entailed are described in Chapters VIII and IX. Accordingly, no additional changes in the text were recommended.

Ms. Conley’s memorandum also referred to Appendix VII-1, and questioned if the cost and impact of meters should be specifically considered under the water accounting component of the water conservation program. The
metering and accounting was not assigned a cost or a benefit, since it was an ongoing expenditure and, as such, was reflected in the base water use data.

Ms. Conley’s memorandum further referred to Appendix VII-1, and questioned if the water conservation rate structure cost was a one-time cost. The rate structure charge was a one-time cost which was assumed to be needed once every decade. The tabular data in Appendix VII-1 indicates the cost for the rate structure design to be once per 10 years.

Ms. Conley’s memorandum referred to Appendix VII-1 and suggested a water charge be applied for landscape watering. The concept of the landscape watering component in the example concerned was to limit the timeframe within such water use is allowed, with water charges being applied based upon the given utility rate structure. The cost and benefit are based upon that concept. Another concept would be to apply separate, higher rates. However, that would not be permitted under the current PSC regulations.

Finally, Ms. Conley’s memorandum questioned the number of toilet replacement rebates being set at 20 in the 3,000 population community example. That number represented the number of participants per year. Over 10 years, that would result in 200 participants, or about one-third of the number of single-family households in the community. The water savings was adjusted to reflect 10 years of replacements, or replacements for 200 participants.

There being no further questions or comments, on a motion by Mr. Melcher, seconded by Mr. Bunker, and carried unanimously, the portion of Chapter VII, “Water Conservation,” of SEWRPC Technical Report No. 43, State-of-the-Art of Water Supply Practices, was approved as amended.

CONSIDERATION OF SEWRPC TECHNICAL REPORT NO. 44, WATER SUPPLY LAW

Chairman Bauer then noted that Ms. Kobza had arrived, and accordingly, asked the Committee to consider Agenda Item 6. He noted that all Committee members had received a copy of Technical Report No. 44, Water Supply Law, for review prior to the meeting. He introduced Ms. Lawrie J. Kobza, a partner in the law firm Boardman, Suhr, Curry & Field, LLP. He noted that Ms. Kobza had been a member of the Boardman law firm for 20 years and had extensive experience in legal issues relating to water supply. He then asked Ms. Kobza to review the report 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.

Mr. Ericson referred to page 13 and questioned if the Canadian governments were included in the parties who would approve an interbasin diversion. Ms. Kobza replied that approval rested within the United States, and that Water Resources Development Acts (WRDA) required only the Great Lakes governors to approve diversions. She noted, however, that WRDA does not include specific language giving any party the right to enforce the diversion rules under WRDA.

Ms. Kobza referred to a recent State Attorney General’s opinion regarding the need for approval of diversions by the Great Lakes governors under WRDA. She noted that the opinion should be referenced under the section concerning WRDA. Mr. Schultz noted that other opinions had been rendered on the same issue; for example, by the City of Milwaukee City Attorney. He asked if those opinions should also be cited. Ms. Kobza responded that the State Attorney General’s opinion would carry more weight in a
court than opinions by other attorneys; and, as such, would be more significant. After further discussion, it was agreed to add text covering the recent State Attorney General’s opinion on diversion and the approvals needed.

[Secretary’s Note: A copy of the revised pages of SEWRPC Technical Report No. 44, which include the revised text on the State Attorney General’s opinion are attached hereto as Exhibit B.]

Mr. Moroney referred to the statement in the fourth full paragraph on page 13, indicating that the Wisconsin Department of Natural Resources (WDNR) was considering changing its interpretation of the term “diversion.” He asked if that change would undergo public review and comment. Ms. Kobza indicated that, in the context of the past decision, it would not, as the interpretation was not set in a rulemaking process.

Ms. Lewis recommended, and it was agreed, to revise the sentence on the WDNR interpretation, in a form that recognized the anticipated longevity of the water law report. The change recommended would revise the beginning of the second last sentence in the fourth full paragraph on page 13.

[Secretary’s Note: A copy of the revised page of SEWRPC Technical Report No. 44 which include the revised text on the State diversion interpretation, is attached hereto as Exhibit C.]

Chairman Bauer noted that some opinions hold that WRDA was unconstitutional and subject to challenge, given there were no standards set forth to evaluate diversions, and given the lack of provision for due process. He referred, in this respect, to Mr. Peter Anin’s recently published book, “The Great Lakes Water Wars.”

Ms. Kobza highlighted the provisions of WRDA on pages 12 and 13 by which Congress has prohibited diversions, unless such diversions are approved by the governor of each of the Great Lakes states.

Mr. Bunker referred to the term “baseline” in the second full paragraph on page 25. He asked if that had been defined. Ms. Kobza replied that it had not, but would be as part of the State rulemaking process. She noted that the intent was to use approved withdrawal amounts or capacities and not actual current usage.

Chairman Bauer referred to the second full paragraph on page 26 and asked if the allowance for consumptive uses had been established. Ms. Kobza noted that the consumptive use allowance had not been prescribed, but would be set forth in the rulemaking which would follow at the State level. Messrs. Melcher and Ericson indicated that the definition of consumptive uses was an important factor which would impact economic development and existing industries. Mr. Melcher asked who would establish that consumptive use allowance. Ms. Kobza indicated that each of the Great Lakes states would have to adopt and implement rules in this regard. For Wisconsin, the Wisconsin Department of Natural Resources would be the likely agency to take the lead in the rulemaking. Chairman Bauer observed that this meant that the State Legislature would play a significant role.

Mr. Moroney referred to the section of the Compact description regarding the Illinois diversion on page 32. He noted that, despite the provisions of the compact, Illinois could seek additional diversion allowances by making a request to the Supreme Court. Ms. Kobza noted that such provisions were covered under Section 4 on page 33.
Ms. Kobza referred to the straddling community diversion exception and noted that the approval of such diversions lies with the State of Wisconsin and does not require approval of all the Great Lakes governors.

Chairman Bauer referred to the first paragraph on page 33 and asked if the term “Basin” applied to the groundwater or surface water basin. Ms. Kobza indicated that the Compact used this term to mean the surface water basin. She indicated that there was discussion during the development of the Compact language regarding the potential for using the groundwater divide. However, the final document included the surface water divide language. Dr. Cherkauer cautioned that the use of the groundwater divide as a definition of the basin was problematic, as it changes with time and varies in the vertical dimensions.

Chairman Bauer asked if the International Joint Commission had a role in the diversion issue as related to the international treaties. Ms. Kobza indicated that, perhaps, there would be for the Great Lakes which border Canada, but not for Lake Michigan which is not a boundary water.

Mr. Mueller asked of the status of approval of the Compact. Ms. Kobza reported that the eight Great Lakes governors had reached agreement and approved the Compact in December 2005. She noted that, to her knowledge, none of the State Legislatures had yet approved the Compact, noting that legislation in Ohio died at the end of the legislative session. Following approval by all of the States, Congress would then have to approve the Compact for it to become law. Ms. Kobza indicated that if the Compact legislation were approved in Wisconsin, and Wisconsin did not condition its effectiveness on Congressional approval, it would be a State law regardless of the Congressional approval.

Mr. Ericson asked how the State approval was being implemented. Ms. Kobza indicated that there was a Legislative Council Special Committee reviewing the Compact and charged with making recommendations. She noted that Mr. Moroney and Mr. Duchniak—members of this Committee—were members of the Legislative Council Committee. Mr. Moroney reported that the Legislative Council Committee which was formed to develop the implementing legislation for the Compact was also developing the implementing rule guidance at the same time in order to clarify the impact and intent of the proposed legislation.

Dr. Cherkauer questioned if there was protection for private well owners from damages due to groundwater withdrawals. Ms. Kobza indicated that there was not, except when municipal wells were involved, in which case, the PSC regulation provided some protection. Ms. Lewis noted that there were State requirements regarding municipal responsibilities to regulate private well abandonment actions.

Mr. Czarkowski noted that tort law would offer some protection to private low-capacity well owners. Ms. Kobza indicated that tort law was covered in Chapter Five. Dr. Cherkauer noted that 20 percent of the population in southeastern Wisconsin was served by wells not covered by regulations protecting their interest. If that was the case, he recommended that the chapter should say so. After further discussion, it was agreed to include text indicating that there was no State regulation protecting private wells from the impacts of other groundwater users.

[Secretary’s Note: The revised pages of SEWRPC Technical Report No. 44 which include the revised text on the protection of private wells are attached hereto as Exhibit D.]

Ms. Lewis questioned whether or not the PSC actions could apply across municipal boundaries. Mr. Biebel noted that the PSC had intervened years ago in a case relating to the construction of a transmission main from the City of Oak Creek into Racine County. Ms. Kobza indicated that the PSC had very broad authority which may indeed extend across municipal boundaries.
Dr. Cherkauer referred to the section covered State groundwater quantity management regulation on page 51. He asked if there were provisions in local zoning regulation to protect groundwater quantity, including recharge area protection. Ms. Kobza noted that there were requirements for wellhead protection. Chairman Bauer noted that most comprehensive zoning ordinances included a preamble which cited the purpose of the ordinance as being the protection of the public health, safety, and welfare, and that item listed a number of specific objectives directed toward that purpose, which list could include groundwater protection. He indicated that there was nothing to preclude the inclusion of groundwater protection-related provisions in municipal comprehensive zoning ordinances based upon intent to protect public health, safety, and welfare. However, there were no State requirements that such zoning must include those provisions. Ms. Anderson noted that this was an important issue. She noted, by example, the proposal to develop a new ethanol production facility in the vicinity of the Village of Union Grove. The ethanol facility was potentially planning on use of its own groundwater source which would be greater than the Village of Union Grove water supply capacity. After further discussion, it was agreed to note in Chapter IV the option of including comprehensive zoning provisions directed toward groundwater protection.

[Secretary’s Note: A copy of the revised pages of SEWRPC Technical Report No. 44 which include the revised text on local municipal comprehensive zoning are attached hereto as Exhibit E. Those pages also provide comments on related public inland lake ordinance.]

Dr. Cherkauer referred to the section on municipal authority to restrict the construction of a well or other water supply facilities within the municipality beginning on page 58. He indicated that he would like to suggest revisions to the section as it relates to the Town of Richfield groundwater ordinance to that section and would provide those comments in written form.

[Secretary’s Note: Dr. Cherkauer provided written comments on the text in Chapter Four. A copy of those comments is attached hereto as Exhibit F. A copy of the revised pages of SEWRPC Technical Report No. 44 which include the revised text on the local Richfield groundwater ordinance and related matters are attached hereto as Exhibit G.]

Ms. Lewis referred to the section on wholesale-retail water service agreements. She asked if the PSC had any jurisdiction over related agreements which did not relate directly to the cost of water. Chairman Bauer noted the agreements reached in the greater Racine area between the City of Racine and the outlying customer municipalities whereby the customer municipalities provided some form of tax revenue sharing with the City. The agreement was developed along with contracts for water and sewer service. Ms. Kobza indicated that the PSC would not typically be involved in such agreements.

Chairman Bauer noted that the Commission staff was proposing to ask Ms. Kobza to add a summary section to the report.

[Secretary’s Note: A copy of the summary section of SEWRPC Technical Report No. 44 will be reviewed as an agenda item at the next meeting.]

There being no further questions or comments, on a motion by Mr. Moroney, seconded by Mr. Winkler, and carried, with Messrs. Czarkowski and Helmuth abstaining and all others voting in the affirmative, Technical Report No. 44, Water Supply Law, was approved as amended. Messrs. Czarkowski and Helmuth indicated that their abstention was because the Wisconsin Department of Natural Resources
legal staff was not able to review the report, not because of any negative opinion regarding the content of the report.

CONSIDERATION OF CHAPTER II, “INVENTORY OF EXISTING FACILITIES,” OF SEWRPC TECHNICAL REPORT NO. 43

Chairman Bauer asked the Committee to consider Agenda Item 4. He noted that all Committee members had received a copy of Chapter II, “Inventory of Existing Facilities,” of SEWRPC Technical Report No. 43 for review prior to the meeting. He noted that the chapter was virtually identical to the summary section of Chapter III, “Water Supply Conditions in the Region,” of SEWRPC Planning Report No. 52, which had been reviewed by the Committee at the previous meeting. Therefore, he asked that the chapter be considered without the usual page-by-page review. He then asked if there were any comments on Chapter II.

[Secretary’s Note: Ms. Conley’s memorandum referred to the first full paragraph on page 2. The memorandum correctly notes that arsenic is a groundwater quality concern. In response to this request, the following sentence was added to the first full paragraph on page 2:

“Another exception is the presence of naturally occurring arsenic in a limited number of municipal and private water supplies.”]

There being no further questions or comments, on a motion by Mr. Grisa, seconded by Mr. Bunker, and carried unanimously, Chapter II, “Inventory of Existing Facilities,” of SEWRPC Technical Report No. 43, *State-of-the-Art of Water Supply Practices*, was approved as amended.

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, February 20, 2007, beginning at 9:30 a.m.

ADJOURNMENT

There being no further business to come before the Committee, on a motion by Mr. Holschbach, seconded by Mr. Melcher, and carried unanimously, the meeting was adjourned at 12:00 noon.

* * *
Comments for SEWRPC Advisory Committee – Jan 23, 2007
Lisa Conley

CHAPTER V11 – WATER CONSERVATION

Page 3 – top – need for Water conservation:

At the last meeting of the Waukesha Water Conservation Coalition, A representative of MMSD gave a presentation on water conservation that they are promoting for the Milwaukee Sewage Treatment area. They have made a commitment to an extensive public education program aimed at public participation in water conservation and infiltration measures.

Since this is much of the same area served by the Milwaukee Water Works, and since this program is aimed at protecting the good quality of Lake Michigan water on which the Water Works is dependant, it would seem short sighted for this report to imply that water conservation is not very important regardless of which side of the divide we draw from. The cleaner a lake is, the faster it can change. The Cleaner the water source is, the less expensive it is to treat it to potable standards.

Just because Milwaukee Water Works can sell more water, does not mean water conservation is not important to the long term health of the waters it uses.

Page 10 – 2nd paragraph – weren’t we going to include the Ontario information?
Page 14 – 2nd paragraph – I believe the last sentence is true and important to keep.

Page 19 – last sentence – the use of Lake Michigan, or captured rainwater as a source of supply would eliminate the need for water softening.

Another issue – question: after reading chapter X, I wonder if another conservation strategy might be to provide additional water towers to enhance fire response. I’m not sure how the financials would look, but maybe it would be cheaper to build additional storage for occasional use, than to upsize the whole system to provide for the occasional heavy draw? I am just curious – not insistent that this is a great idea.

APPENDIX V11-1

Page 1
Water Accounting – what about the cost or need for, or impact of meters?
Water Conserving rate structure – I believe the cost is a one-time conversion expense, not an ongoing yearly expense?

Page 2 – Landscape watering ordinance - add – charge a fee for this water.
Toilet rebate – why stop at the first 20 customers?
Chart – page 3 – same comment about cost of water conserving rate structure –
one time conversion, rather than annual expense.

CHAPTER II – INVENTORY OF EXISTING FACILITIES

Page 1 – second paragraph – I like this language a lot – particularly relating to
the interconnectedness and interdependence of groundwater and surface water
resources. – hope it doesn’t change.
PP 2 – end of 2nd line – typo – Shallow

Page 2 – paragraph 2 – I think arsenic is a serious problem where it exists, and
should be included. I believe the liberation of this poison is the result of the
aquifer draw down this report is concerned with.

Page 5 – paragraph 7 – thank you for including numbers here – important to put
these uses into perspective.

CHAPTER X – APPLICATION OF STANDARDS AND COST DATA

Page 1 – bottom paragraph - This over sizing of systems to provide for fire
response made me wonder if more storage is not a cheaper way to go?

Page 3 – water quality: I would like to see a statement about the importance of
protecting the quality of source water, which has the benefit of making treatment
a less expensive process.

Page 5 – table X-2 - large solids and animals at intake - does this include zebra
mussels? Or do they belong somewhere else?

WATER SUPPLY LAW REPORT

Ms. Conley requested more time to review the law report in order for her to
obtain input from others.

Scheduling of next meeting – I will not be available until after February 27.
The last two weeks of March through April 4 are probably bad too.
those 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.

The State of Wisconsin, however, is reportedly considering changing its interpretation. In a December 27, 2006 letter, however, the Wisconsin Attorney General disagreed with the WDNR’s interpretation of the term “diversion” to include any transfer of water from the Great Lakes Basin, whether water is returned or not. This new interpretation would be consistent with the definition of diversion contained in the Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement, which was signed by the Great Lakes States on December 13, 2005. 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. 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 opines, 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.

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. As of the date of this Report, the WDNR has not publicly announced how it will handle this issue.

One statutory limitation on WRDA’s prohibition on diversions is that it does not apply to any diversion of water from any of the Great Lakes which was authorized on or prior to November

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35 Id. at 8.

36 Id. at 5.
or private entity for use outside the Great Lakes basin unless such diversion is approved by the Governor of each of the Great Lakes States.\textsuperscript{32}

Since the enactment of WRDA, two interbasin diversions have been approved (or not objected to) by the Great Lakes Governors. In 1998, Akron, Ohio, which straddles the drainage divide between the Ohio River and Lake Erie, won approval to withdraw water from Lake Erie with a promise to return an equivalent amount to the Lake. Approval by some Governors and no objection by others was also given to a similar request by Pleasant Prairie, Wisconsin to divert water from Lake Michigan. The Governors reportedly consented or did not object to these diversions largely because the diversions were relatively small, hinged on a return of water equivalent to the amount diverted, and served immediate needs of local governments located fairly close to the boundaries of the basin.

Since its adoption, many questions have been raised about the interpretation and enforceability of WRDA. Four major questions regarding WRDA are particularly relevant to Southeastern Wisconsin. First, what is a diversion under WRDA? Second, does WRDA apply to groundwater? Third, is WRDA legally enforceable? And fourth, if WRDA is enforceable, who can enforce it? As will be seen in the following discussion, there are no definitive answers to these questions at this time.

\textbf{a. Diversions under WRDA}

While WRDA prohibits diversions unless approval of all Great Lakes Governors is received, WRDA does not define what a diversion is. There is also no case law which defines the term “diversion” under WRDA. The dictionary defines the term “diversion” as “the act or an instance of diverting from one course or use to another”, or as “a turning aside”.\textsuperscript{33}

WRDA’s prohibition on diversions also does not contain any provision for reasonable use of water, or for de minimis diversions. Under the literal language of WRDA, the diversion of a teaspoon of water from the Great Lakes Basin without the eight Governors’ approval would violate WRDA.

The Wisconsin Department of Natural Resources has taken the position in the past that water taken and used outside the Basin, but then returned to the Basin, is not a diversion subject to WRDA. \textbf{In essence, the WDNR evaluates whether a diversion exists at the end of the proposed water use. If at the end of the proposed water use water is within the Basin, the WDNR has not considered that to be a diversion.} Such a situation may exist where a municipality located within the Basin provides water to customers located outside the Basin, but then collects wastewater from

\textsuperscript{32}42 U.S.C. § 1962d-20(b).

\textsuperscript{33}Webster’s Third New International Dictionary.
those 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.

The State of Wisconsin, however, is reportedly considering changing its interpretation. In a December 27, 2006 letter, however, the Wisconsin Attorney General disagreed with the WDNR’s interpretation of the term “diversion” to include any transfer of water from the Great Lakes Basin, whether water is returned or not. This new interpretation would be consistent with the definition of diversion contained in the Great Lakes - St. Lawrence River Basin Sustainable Water Resources Agreement, which was signed by the Great Lakes States on December 13, 2005. 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.34 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 opines, 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.35

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One statutory limitation on WRDA’s prohibition on diversions is that it does not apply to any diversion of water from any of the Great Lakes which was authorized on or prior to November


35Id. at 8.

36Id. at 5.
17, 1986. The statute does not define what an authorized diversion is, or who must have granted the authorization. Likely, however, a diversion in Southeastern Wisconsin existing on November 17, 1986 would be exempt from WRDA if it met the requirements of Wisconsin law at that time.

b. WRDA’s Application to Groundwater

Another question that has arisen is whether WRDA applies to groundwater, so that the diversion of groundwater for use outside the Basin would be prohibited without the approval of the Great Lakes Governors. The language of WRDA applies to the diversion or export of “water” from “any tributary” of the Great Lakes “for use outside the basin.” There are no reported judicial decisions that have interpreted this language of WRDA. The United States Army Corps of Engineers, however, has opined that WRDA pertains to surface water diversions only, and not to groundwater extraction. In reaching this conclusion, the Corps relied upon its understanding of a "common meaning" of the terms "Great Lakes" and "tributaries" as referring to surface waters, and not groundwater. The Corps also noted the fact that groundwater is excluded from regulation under Section 404 of the Clean Water Act, which is also administered by the Corps and United States Environmental Protection Agency.

The Corps’ conclusion that WRDA’s prohibition on diversions does not apply to groundwater has been criticized by those who contend that the purpose of WRDA was to codify into Federal law the terms of the Great Lakes Charter. In the Great Lakes Charter, the term “Great Lakes waters” is explicitly defined as including “the Great Lakes and all streams, rivers, lakes, connecting channels, and other bodies of water, including tributary groundwater within the Great Lakes Basin.”

The critics of the Corps’ interpretation have also argued that the exclusion of groundwater from the application of WRDA is not scientifically sound because groundwater and surface water are hydrologically connected. They argue that the diversion of water from a groundwater source that communicates with a surface stream or lake has the ultimate effect of diverting surface water from the Great Lakes system. So, they argue, the diversion of groundwater from the Great Lakes Basin should also require the approval of the eight Great Lakes Governors under WRDA.

This disagreement over whether groundwater is covered by WRDA raises issues similar to those in the Solid Waste Agency of Northern Cook County and Rapanos cases discussed above.


38See August 8, 1997, letter from William Breyfogle, St. Paul District, Army Corps of Engineers, to Mr. Rodney Harrill, President of the Crandon Mining Company.

39The Great Lakes Charter is discussed in Chapter 2.
and cause significant environmental impact; (3) have a significant environmental impact on a spring; or (4) result in a water loss of more than 95 percent of the amount of water withdrawn.\textsuperscript{14} \textbf{The high capacity well approval statute does not require the WDNR to consider whether the proposed well will negatively impact an existing private well.}\textsuperscript{15}

If the WDNR determines that a proposed high capacity well may impair the water supply of a public utility, the WDNR may not approve the high capacity well unless it includes in the approval conditions which will ensure that the water supply of the public utility will not be impaired.\textsuperscript{16}

If the proposed well is located in a groundwater protection area, the WDNR may not approve the high capacity well unless it includes in the approval any needed conditions to ensure that the high capacity well does not cause significant environmental impact within the groundwater protection area.\textsuperscript{17} A groundwater protection area is defined under section Section 281.34(1)(a) of the Wisconsin Statutes, is an area within 1,200 feet of an outstanding resource water as identified under section Section 281.15 of the Statutes, an exceptional resource water as identified under section Section 281.15 of the Statutes, or a class I, class II, or class III trout stream, other than a class I, class II, or class III trout stream that is a farm drainage ditch with no prior stream history. One exception to this prohibition is that it does not apply to a proposed high capacity well for a public utility engaged in supplying water to or for the public, if the WDNR determines that there is no other reasonable alternative location for the well and is able to include in the approval, conditions as to location, depth, pumping capacity, rate of flow, and ultimate use, that ensure that the environmental impact of the well is balanced by the public benefit of the well related to public health and safety.\textsuperscript{18}

If a proposed well is located near a spring, the WDNR may not approve the well unless it includes in the approval any needed conditions to ensure that the high capacity well does not cause significant environmental impact to the spring.\textsuperscript{19} A spring is defined under section Section 281.34(1)(f) of the Statutes as an area of concentrated groundwater discharge occurring at the surface of the land that results in a flow of at least one cubic foot per second at least 80 percent

\textsuperscript{14}§ 281.34(5), Wis. Stats. Consumptive use is determined in accordance with NR § 142.04, Wis. Admin. Code.

\textsuperscript{15}For discussion regarding impacts to private wells, see Section C of this Chapter and Chapter 6.

\textsuperscript{16}§ 281.34(5)(a), Wis. Stats.

\textsuperscript{17}§ 281.34(5)(b), Wis. Stats.

\textsuperscript{18}§ 281.34(5)(b)2., Wis. Stats.

\textsuperscript{19}§ 281.34(5)(d), Wis. Stats.
there is no town or county zoning, freezes uses in the area during the period in which the extraterritorial ordinance is being prepared. The interim extraterritorial zoning ordinance is valid for two years after its enactment and may be extended for another year if the joint extraterritorial zoning committee made up of city or village representatives and town representatives agrees. In order to permanently exercise extraterritorial zoning powers, an extraterritorial zoning ordinance for the area must be developed and approved by the joint extraterritorial zoning committee and the city council or village board. If no extraterritorial zoning ordinance is developed and approved, the city of village will have no extraterritorial zoning authority after the expiration of the interim zoning ordinance.

C. MUNICIPAL ZONING AUTHORITY RELATED TO GROUNDWATER

Wisconsin statutes authorize cities, villages, towns and counties to adopt zoning ordinances. The city’s zoning authority is found in Section 62.23(7) of Wisconsin statutes. Under this authority, a city may regulate and restrict by ordinance the height, number of stories and size of buildings and other structures, and the location and use of buildings, structures and land among other things. City ordinances are to be made in accordance with a comprehensive plan and designed to, among other things, encourage the protection of groundwater resources, and to facilitate the adequate provision of water, sewerage, and other public requirements. This statute also applies to villages and any town which has passed a resolution to exercise village powers.

A town not authorized to exercise village powers may enact a zoning ordinance unless the county in which it is located has already enacted county zoning. Under Section 60.61 of the Wisconsin statutes, a town is authorized to adopt ordinances to, among other things, regulate the location and size of structures and encourage the protection of groundwater resources. A county’s planning and zoning authority is found in Section 59.69 of the Wisconsin statutes. Under that authority, the county is authorized to plan for the physical development and zoning of territory within the county to accomplish a variety of public purposes including the encouragement of planned and orderly land use development, the protection of groundwater resources, the preservation of wetlands, and the conservation of soil, water and forest resources.

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20 § 62.23(7a)(b), Wis. Stats.

21 Id.

22 § 62.23(7a), Wis. Stats.

23 § 61.35, Wis. Stats.

24 § 60.22(3), Wis. Stats.
In addition to general zoning authority, Section 236.45 of Wisconsin statutes authorizes any municipality, town or county to adopt subdivision ordinances. Ordinances are to promote the public health, safety and general welfare of the community, including facilitating the adequate provision for water and sewerage.

The ability of a public inland lake protection and rehabilitation district to adopt ordinances, however, is questionable. Section 33.29(1)(c) of the Wisconsin Statutes provides that the board of commissioners of an inland lake district is responsible for contacting and attempting to secure the cooperation of officials of units of general purpose government in the area for the purpose of enacting ordinances deemed necessary by the board as furthering the objectives of the district. This suggests that the general purpose governments and not the inland lake district is authorized to adopt ordinances.

D. MUNICIPAL AUTHORITY TO RESTRICT THE CONSTRUCTION OF ANOTHER MUNICIPALITY’S WELL WITHIN THE FIRST MUNICIPALITY

Although municipalities have extensive authority to regulate for the health, safety and welfare of their citizens, this authority to regulate may be withdrawn by the State, and the courts have held that the legislature has acted to withdraw a municipality’s ability to regulate the installation and use of high capacity wells within it borders. In Fond du Lac v. Empire, the Town of Empire adopted a series of ordinances requiring a permit from the Town Board before a party could drill a water well greater than six inches in diameter. The City of Fond du Lac purchased a tract within the Town in order to drill twelve inch wells to augment its water supply and then brought a declaratory judgment action challenging the Town ordinances. The Town claimed that its ordinances were validly adopted to protect the area’s water supply. The court noted the existence of section Section 144.03 of the Wisconsin Statutes (1953), which granted the State Board of Health "general supervision and control over the waters of the state" and which also declared that "the public health, comfort, welfare and safety requires the regulation by the State of the use of subterranean waters of the State in the manner provided in this section Section." The court held that the legislative determination that water resources management required statewide regulation and control was entitled to "great weight" and that the primacy of statewide interests made the Town ordinances invalid. The court acknowledged that the tapping of the water basin by the City was a matter of local concern to the Town. However, it found that where a matter affects the interests of local residents as well as the interests of the people in other areas of the State, the test to be applied in resolving the matter is that of paramount interest, and the interest of the

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26Compare §§ 281.11 and 281.12, Wis. Stats., which today grant WDNR this authority.

27Fond du Lac v. Empire, 273 Wis. at 338.
Douglas S. Cherkauer, Hydrogeologist
Department of Geosciences, University of Wisconsin-Milwaukee

Overall the report does an excellent job of presenting an overview of the laws that relate to water supply quantity and quality throughout the region. It condenses and clarifies an otherwise complex situation and will be very helpful as SEWRPC develops a water supply plan. This report will become the primary source of information that the public has regarding these laws.

With that in mind, I would like to make some suggestions for clarifying the report in the area of groundwater so that it may better serve its audience, particularly non-specialists in water law. There are 3 areas with which I take some issue, as I indicated at the meeting on January 23. They are addressed below, with the emphasis of this commentary being on the third, the Richfield groundwater protection ordinance.

First, in Chapter 3, section B. 1, I think it is important to directly state that there are no protections provided to domestic wells (private, low capacity) under current laws and regulations. This is implicit in the absence of any discussion in the section, but direct inclusion will clarify the situation. It would also be appropriate to point out, as suggested by Mr. Czarkowski, that private well owners (as everyone else) can take disputes to court for resolution, and that this is covered later in the report. Action by suit is a reactive response to a problem, where it can be very difficult to demonstrate cause and effect. It is in striking contrast to state rules that provide an analysis of possible impacts to municipal wells before approval of new high-capacity wells. [I understand the major difference in scale and population here. I'm trying to get the report to recognize that over 300,000 residents in the region (those with private wells) are not really protected as thoroughly as their municipal counterparts.]

Second, in Chapter 3, section D. 3, I'd request 2 things. I think that the discussion in the second paragraph means high capacity wells (and perhaps just hi cap municipal?) whenever the word well is used. More importantly, however, I think that there are laws in effect now that enable communities to manage their land use in a fashion designed to protect their groundwater resources. These are alluded to in the Attorney General's letter and supporting documentation referred to on page 59 of this report. It would be very instructive if the report addressed this area. [I witnessed the reaction to this point at the meeting, which was basically that land use planners historically have not thought about managing groundwater recharge. If this is legally not allowed, so be it. However, if it is allowed or encouraged, and our committee and the public are not aware of this, then how will we be able to address management of the full groundwater system (from recharge to discharge) rather than simply focusing on the outflow end of the pipe?]

Third is the discussion of the Richfield ordinance and the controversy about it between the DNR and the Attorney General's office, discussed in Chapter 4, section B, pages 59 to 63. I apologize for my overly strong comments at the meeting and for the fact that I wasn't able to more clearly state my concerns. I'll try to rectify that below.
One major concern I have is that the discussion is located under a very misleading heading "Municipal authority to restrict the construction of a well or other water supply facilities within the municipality". This characterizes the ordinance under the interpretation of one side of the disagreement, unfortunately biasing the presentation. This discussion really belongs in a separate section entitled something like "Community ordinances protecting groundwater quantity".

Let me explain my perspective of the situation first and then suggest a few additional clarifications. As one of the originators of the concept of the ordinance, here are several points that define my view of the setting within which the Richfield now sits and why I have concerns with the way it is presented in the report.

1. State regulation of groundwater quantity is largely provided by WDNR.

2. Groundwater quantity protection by the State is afforded under very limited conditions, which are spelled out in the report. Primary among these is that WDNR through its permitting process only examines the impact of proposed high capacity wells. And then it only considers whether those wells will have adverse impacts on existing municipal wells, large springs and designated trout streams.

3. The Town of Richfield, like many other communities relying on private, low-capacity wells, meets none of the criteria under point 2. There are no municipal wells, large springs or designated trout streams in the town. Therefore, if a development is proposed which requires large quantities of water, State regulations provide no assurances to residents of Richfield that this proposal will not adversely affect their private wells or that it will not dry up lakes or streams or wetlands, all integral parts of the local hydrologic system.

4. The Town, therefore, adopted its ordinance to determine the level of impacts before approving a proposed development, just like it looks at impacts on traffic before approval. The idea is to provide decision makers with this information before a development is approved, because learning about impacts after construction is too late to reverse the damage to the water supply system.

If the groundwater drawdowns from a project will be too large, the developer will be asked to redesign the project's land use so that it meets the drawdown requirements. The ordinance is not about wells; it does not say anything about restricting the construction of a well, its location or design. Rather it is about assuring the community that future development will be compatible with the Town's continued reliance on its underlying ground water as its sole source of supply.

5. The WDNR has viewed this ordinance from its own perspective. Because the WDNR does not protect private wells, it views this ordinance only for its potential impact on the things it regulates, high capacity wells. They argue that the ordinance is an improper restriction of their authority over these wells.
6. The Attorney General's comments both react to the WDNR interpretation and then point out where the protection of groundwater systems extends beyond what WDNR regulates.

7. My concern with the presentation of the ordinance in the report is that it focuses largely on point 5 above and on the Attorney General's reactions and comments as they relate to point 5. Point 2 above was presented earlier in the report, but is not reiterated here. My points 3 and 4, which are certainly germane to the discussion and on the minds of many communities using private wells, are missing.

My suggestions for clarification of the text, given the preceding background, are:

a. As suggested earlier, move most or all of the discussion to a section which does not inherently adopt the WDNR interpretation of the ordinance.

b. On page 59, para 3. Does the AG actually opine that the ordinance "would limit the ability of a party to install a well in the town"? I haven't found that, and it seems inconsistent with the actual opinion. If this discussion were not in a section about well restrictions, this comment would be largely irrelevant and would remove an implicit misconception.

c. Page 61, para 3. The section that reads "the AG has concluded that despite prior case law to the contrary, local governments can adopt ordinances determining whether and under what conditions a well may be installed within their borders" continues this misrepresentation of the ordinance. The ordinance regulates groundwater use and its impacts, not wells.

d. Page 62, para 4 states that the AG's opinion is about ordinances "prohibiting the installation of wells within its borders". This continues the misrepresentation of the ordinance. If the discussion were not in a section on wells, there would be no need to make this assertion.

e. Pages 62 and 63. The last 4 sentences of the last paragraph of section B, sound very appealing, but they are misleading. The report states that the WDNR will act to protect "other nearby wells and the environment before approving the construction of a new well". This glosses over several realities. A "new well" will only be a high capacity well. The "environment" will only be large springs and designated trout streams. And "other nearby wells" will only be municipal wells.
Exhibit G

A third statute, section Section 60.52 of the Wisconsin Statutes, provides that if a city or village adjoining a town seeks to construct and maintain sewer or water facilities in the adjoining town, and seeks to serve customers within that adjoining town, the city or village must first obtain the approval of the town board. This Statute does not apply to the situation where facilities are constructed in an adjoining town, but service will not be extended to any part of the town.¹³

In situations where utility facilities are installed in existing public rights-of-way, the utility need not obtain any separate property rights to install the utility facilities in the rights-of-way. However, if utility facilities are to be constructed in other areas, a municipality must obtain the property right to build those facilities in those other areas. A municipality may obtain these property rights through negotiation and purchase, or condemnation. The Wisconsin Statutes specifically authorize a municipality to acquire property outside its borders by condemnation using the procedures set forth in sections Sections 32.05 or 32.06 of the Statutes. A utility is not required to seek approval of the local government prior to condemnation.¹⁴

B. MUNICIPAL AUTHORITY TO RESTRICT THE CONSTRUCTION OF A WELL OR OTHER WATER SUPPLY FACILITIES WITHIN THE MUNICIPALITY

Water supply is often seen as a local resource which one community seeks to protect for itself and its citizens. To protect this resource, local governments have on occasion adopted ordinances to prohibit or limit the installation of water supply facilities within their borders without their approval. The purpose of these ordinances have often been to prevent a different governmental body from installing water supply facilities within the first municipality’s borders. Local ordinances, however, to prevent the installation of municipal water supply wells have been struck down by the courts in the past as being preempted by State law: ANNEX NONCONTIGUOUS PROPERTY FOR WATER SUPPLY PURPOSES.

A city or village may annex territory it owns that lies near but not necessarily contiguous to its corporate boundaries by adopting an annexation ordinance in accordance with Section 66.0223 of Wisconsin Statutes.¹⁵ This could occur, for example, in situations where a municipality owns a well site outside of its municipal borders which it seeks to annex to the municipality. The property annexed must be located in the same county as some or all of the city or village unless the town from which the property is annexed and the county agree to

¹³Danielson v. City of Sun Prairie, 2000 WI App 227, 239 Wis. 2d 178, 619 N.W.2d 108.
¹⁴Id. at ¶13.
¹⁵§ 66.0223(1), Wis. Stats.
the annexation.\textsuperscript{16} A city or village may not annex property in a manner contrary to a cooperative plan between neighboring municipalities developed in accordance with Section 66.0307 of Wisconsin Statutes.

The courts have not addressed the issue of how "near" territory must be to the municipality in order to be annexed under Section 66.0223. The courts have also not addressed whether municipalities may annex other non-municipally owned lands to non-contiguous, municipally-owned lands which were annexed under Section 66.0223.

Section 66.0223(1) requires that the city’s or village’s use of the non-contiguous property owned and annexed by the municipality not be contrary to any town or county zoning regulation.\textsuperscript{17} This limitation requires compliance only with valid town or county zoning regulations. Section D of this Report discussed the issue of the validity of a municipal ordinance which seeks to restrict the construction of a well or other water supply facilities within a municipality.

The limitation that the city’s or village’s use of the non-contiguous property owned and annexed by the municipality not be contrary to any town or county zoning regulation raises the question of whether the municipality’s use of the property need only be consistent with town or county zoning regulation at the time of the annexation, or whether the municipality’s continued use of the property must remain consistent with town or county zoning regulation. Although no case directly addresses this question, Town of Madison v. City of Madison\textsuperscript{18} suggests that the use of property annexed under Section 66.0223 would remain restricted to those uses consistent with town or county zoning regulation.

Once the property is annexed by the city or village, it is subject to city or village regulation provided that the zoning of the annexed non-contiguous property is consistent with town or county zoning. In addition, the city or village may seek to exercise its extraterritorial zoning over property adjacent to the annexed property.\textsuperscript{19} The extraterritorial zoning jurisdiction of 1st to 3rd class cities extends over unincorporated property within three miles beyond corporate limits. The limit for 4th class cities and villages is 1-1/2 miles beyond corporate limits.

The city or village seeking to exercise extraterritorial zoning jurisdiction may adopt an interim extraterritorial zoning ordinance that freezes existing town or county zoning, or if

\textsuperscript{16}§ 66.0223(2), Wis. Stats.

\textsuperscript{17}§ 66.0223(2), Wis. Stats.

\textsuperscript{18}Town of Madison v. City of Madison, 12 Wis.2d 100, 104-105, 106, N.W.2d 264 (1960)

\textsuperscript{19}§ 62.23(7a), Wis. Stats.
there is no town or county zoning, freezes uses in the area during the period in which the extraterritorial ordinance is being prepared.\textsuperscript{20} The interim extraterritorial zoning ordinance is valid for two years after its enactment and may be extended for another year if the joint extraterritorial zoning committee made up of city or village representatives and town representatives agrees.\textsuperscript{21} In order to permanently exercise extraterritorial zoning powers, an extraterritorial zoning ordinance for the area must be developed and approved by the joint extraterritorial zoning committee and the city council or village board.\textsuperscript{22} If no extraterritorial zoning ordinance is developed and approved, the city of village will have no extraterritorial zoning authority after the expiration of the interim zoning ordinance.

C. MUNICIPAL ZONING AUTHORITY RELATED TO GROUNDWATER

Wisconsin statutes authorize cities, villages, towns and counties to adopt zoning ordinances. The city’s zoning authority is found in Section 62.23(7) of Wisconsin statutes. Under this authority, a city may regulate and restrict by ordinance the height, number of stories and size of buildings and other structures, and the location and use of buildings, structures and land among other things. City ordinances are to be made in accordance with a comprehensive plan and designed to, among other things, encourage the protection of groundwater resources, and to facilitate the adequate provision of water, sewerage, and other public requirements. This statute also applies to villages\textsuperscript{23} and any town which has passed a resolution to exercise village powers.\textsuperscript{24}

A town not authorized to exercise village powers may enact a zoning ordinance unless the county in which it is located has already enacted county zoning. Under Section 60.61 of the Wisconsin statutes, a town is authorized to adopt ordinances to, among other things, regulate the location and size of structures and encourage the protection of groundwater resources.

A county’s planning and zoning authority is found in Section 59.69 of the Wisconsin statutes. Under that authority, the county is authorized to plan for the physical development and zoning of territory within the county to accomplish a variety of public purposes including the encouragement of planned and orderly land use development, the protection of groundwater resources, the preservation of wetlands, and the conservation of soil, water and forest resources.

\textsuperscript{20} § 62.23(7a)(b), Wis. Stats.

\textsuperscript{21} Id.

\textsuperscript{22} § 62.23(7a), Wis. Stats.

\textsuperscript{23} § 61.35, Wis. Stats.

\textsuperscript{24} § 60.22(3), Wis. Stats.
In addition to general zoning authority, Section 236.45 of Wisconsin statutes authorizes any municipality, town or county to adopt subdivision ordinances. Ordinances are to promote the public health, safety and general welfare of the community, including facilitating the adequate provision for water and sewerage.

The ability of a public inland lake protection and rehabilitation district to adopt ordinances, however, is questionable. Section 33.29(1)(c) of the Wisconsin Statutes provides that the board of commissioners of an inland lake district is responsible for contacting and attempting to secure the cooperation of officials of units of general purpose government in the area for the purpose of enacting ordinances deemed necessary by the board as furthering the objectives of the district. This suggests that the general purpose governments and not the inland lake district is authorized to adopt ordinances.

D. MUNICIPAL AUTHORITY TO RESTRICT THE CONSTRUCTION OF ANOTHER MUNICIPALITY’S WELL WITHIN THE FIRST MUNICIPALITY

Although municipalities have extensive authority to regulate for the health, safety and welfare of their citizens, this authority to regulate may be withdrawn by the State, and the courts have held that the legislature has acted to withdraw a municipality’s ability to regulate the installation and use of high capacity wells within it borders. In Fond du Lac v. Empire, 25 the Town of Empire adopted a series of ordinances requiring a permit from the Town Board before a party could drill a water well greater than six inches in diameter. The City of Fond du Lac purchased a tract within the Town in order to drill twelve inch wells to augment its water supply and then brought a declaratory judgment action challenging the Town ordinances. The Town claimed that its ordinances were validly adopted to protect the area’s water supply. The court noted the existence of section Section 144.03 of the Wisconsin Statutes (1953), which granted the State Board of Health "general supervision and control over the waters of the state" and which also declared that "the public health, comfort, welfare and safety requires the regulation by the State of the use of subterranean waters of the State in the manner provided in this section Section." 26 The court held that the legislative determination that water resources management required statewide regulation and control was entitled to "great weight" and that the primacy of statewide interests made the Town ordinances invalid. 27 The court acknowledged that the tapping of the water basin by the City was a matter of local concern to the Town. However, it found that where a matter affects the interests of local residents as well as the interests of the people in other areas of the State, the test to be applied in resolving the matter is that of paramount interest, and the interest of the


26Compare §§ 281.11 and 281.12, Wis. Stats., which today grant WDNR this authority.

27Fond du Lac v. Empire, 273 Wis. at 338.
people generally is paramount to that of the residents of the town. The court also found that the Statute which authorizes municipalities to acquire, own, and operate a source of water supply and necessary transmission facilities beyond its corporate limits is also a general law of the State, which would conflict with the Town ordinances, providing a second reason for holding the Town ordinances invalid.

The court reached a similar conclusion in the Town of Grand Rapids v. Water Works and Lighting Comm’n. In that case, the City of Wisconsin Rapids sought to build a water supply well in the Town of Grand Rapids. The Town adopted a zoning ordinance barring the proposed well. The court struck down the ordinance concluding that the Town lacked the authority to prohibit the construction and operation of the utility well. The court held that the Town did not have the authority to regulate the removal and use of groundwater without specific statutory authority because groundwater is a matter of statewide concern. The court also held that the WDNR and the PSC have the express authority to regulate water supply and public utilities, and that these grants of power are comprehensive and clearly preempt local authority.

Despite these court cases, the Wisconsin Attorney General has recently opined that a town may have the authority to adopt a groundwater protection ordinance which would limit the ability of a party to install a well in the town. The Attorney General, however, has recently opined that the preemption principles and holdings in Fond du Lac v. Empire are outdated, and that a court would no longer follow the Fond du Lac v. Empire case. As a result, under the Attorney General’s preemption analysis, a town could have the authority to adopt an ordinance which could limit the ability of a party to install a well in the town.

In reaching this conclusion, the Attorney General analyzed the specific groundwater ordinance adopted by the Town of Richfield, Washington County at issue in the opinion under the four part test for determining whether a local ordinance has been preempted by the State: (1) has the legislature expressly withdrawn the power of legislation; (2) does the local legislation logically conflict with State legislation; (3) does the local legislation defeat the purpose of State legislation; and (4) does the local legislation violate the spirit of State legislation. The Attorney General then concluded that under that analysis the Town of Richfield’s groundwater ordinance was not in conflict with be preempted by the State legislation. The Attorney General’s conclusion was

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28Id. at 338-339.

29Id. at 341.


318/28/2006 Memo from Assistant Attorney General Thomas Dawson to Attorney General Peggy Lautenschlager, regarding State Preemption of Town of Richfield Groundwater Protection Ordinance at 34.
based upon the view that the State has not comprehensively regulated in the area of groundwater quantity, and that therefore local regulation in this area would not conflict with State regulation.\textsuperscript{32}

The Attorney General’s conclusion is based in large part on an interpretation of Chapter 280 of the Wisconsin Statutes, which the Attorney General characterizes as regulating the quality of groundwater that may be used for human consumption as or after it is extracted. The opinion states:

While the statute authorizes DNR to regulate wells in order to protect the \textit{quality} of groundwater that may be withdrawn and used \textit{for human consumption}, the statute does not expressly mention groundwater quantity or its conservation as a purpose of the statute, nor does it provide for express or specific authorization for DNR to protect groundwater supply quantities through its well-construction regulatory activities. In short, the statute is a statute for protecting the quality of water destined for human consumption, not a statute for protecting the quantity of groundwater.\textsuperscript{33}

The Attorney General acknowledged that \textbf{sections Sections} 281.34 and 281.35 of the Wisconsin Statutes, as opposed to Chapter 280, do contain regulatory requirements that require the WDNR to approve high capacity wells that pump more than 100,000 gallons per day. However, the Attorney General concluded that these Statutes are not so comprehensive as to suggest an intent by the legislature to adopt a complete and all-encompassing plan to protect groundwater supplies.\textsuperscript{34}

In light of this interpretation of Chapter 280, and \textbf{sections Sections} 281.34 and 281.35 of the Wisconsin Statutes, the Attorney General concluded that local regulation over groundwater quantity would complement, and not conflict with, State regulation. The opinion states:

The local regulation of land uses to protect groundwater supplies does not block, impede, interfere with, or make impossible achievement of the purposes of Chapter 280 or DNR’s regulation of water supply wells in order to protect the \textit{quality} of groundwater that may be used \textit{for human consumption} as or after it is extracted.

The \textit{[town’s]}\ldots local regulatory scheme protects groundwater supplies in aquifers against over-consumption; the State scheme in Chapter 280 protects the quality of the water for human consumption only when it is withdrawn. The local and State enactments do not closely share similar purposes, are not directly related, and do not interfere with each other. A local zoning, land use, or building restriction

\textsuperscript{32}Id. at 23, 30.

\textsuperscript{33}Id. at 23.

\textsuperscript{34}Id. at 33.
would not interfere with or prevent DNR from performing its functions or meeting the statutory requirements under Chapter 280. Rather, the two appear to complement each other. Local zoning and land use restrictions to protect groundwater supplies designate areas and activities appropriate to that goal. The State regulation of the location and construction of wells within those locally designated areas assures protection of water quality when it is withdrawn. As with so many other activities, local regulation and State regulation complement each other to meet both local and State objectives.\textsuperscript{35}

In essence, the Attorney General has concluded that, despite prior case law to the contrary, local governments can adopt ordinances determining whether and under what conditions a well may be installed within their borders. The Attorney General acknowledges that under this opinion, a town could deny a party a groundwater protection permit, and thereby prevent a person from taking water from the aquifer.\textsuperscript{36} However, the Attorney General concludes that it is appropriate for the local regulation to determine whether and how much of the groundwater may be tapped; while the State law regulates how it may be tapped. To conclude otherwise, the Attorney General states would be to interfere with the municipal right to regulate land use.

Despite the Attorney General’s opinion that the court’s holding in Fond du Lac v. Empire is outdated, it must be acknowledged that the case is still good law and was followed by the Court of Appeals in 1991 in Town of Grand Rapids v. Water Work and Lighting Comm’n.\textsuperscript{37} In fact, the court in Town of Grand Rapids v. Water Works and Lighting Comm’n specifically rejected a number of the arguments that the Attorney General now makes in the Richfield opinion. First, the court held that the Town’s power to issue zoning regulations designed “to encourage the protection of groundwater resources” is not the power to control the location of City wells within the Town. The power to “encourage”, the court held, is weaker than the power to “control”.\textsuperscript{38}

We are satisfied that the legislature made a conscious choice to limit the authority municipalities could exercise over groundwater, by granting only the indirect power “to encourage” rather than the direct power “to control.” As a result, when the legislature granted towns the power “to encourage” groundwater conservation,

\textsuperscript{35}Id. at 27.

\textsuperscript{36}Id. at 28.


\textsuperscript{38}Id. at 4.
towns received a limited empowerment excluding the right to outlaw city-built wells on city-owned property located within town boundaries.  

Second, the Grand Rapids court held that even if the Town did have some power to regulate, the WDNR’s and PSC’s express authority to regulate in this area would supersede local regulation. According to the court, “[t]hese grants of power to the PSC and DNR are comprehensive, clearly preempting local authority, directly inconsistent with the local law.” Finally, the court rejected the Town’s argument that the State Statutes deal with the quality of the water, not its quantity, and therefore do not limit town action directed to quantity issues. The court stated that the broad terms used in the Statutes demonstrate that it is concerned with more than just the quality of water. “[T]he legislature sought to empower the PSC and DNR to regulate anything pertaining to public utilities and groundwater that could adversely affect the public interest in its groundwater resources. Like the quality of groundwater, the quantity of groundwater a public utility removes is also something that falls within this broad grant of administrative power.”

Given the conflicting analysis demonstrated by the courts and the Wisconsin Attorney General regarding a municipality’s authority to adopt ordinances prohibiting the installation of wells within its borders, this issue seems destined for further litigation. In this litigation, the fact that the WDNR and PSC have extensive authority over public utility construction under sections Sections 281.41 and 196.49 of the Wisconsin Statutes, will likely prove important. As discussed in Chapter 3, the WDNR and PSC have broad authority to review all aspects of public water supply system construction. Before approving the construction of a new public utility well or water source, the PSC is to examine a proposed project from the view of parties that may be affected by it to determine whether public convenience and necessity require the project. Similarly, the WDNR is authorized to consider the anticipated drawdown effects from a new public water system well on other nearby wells and the environment before approving the construction of a new well. If after this review, the PSC and WDNR approve a new public utility well, it would seem unlikely that a court would allow a local government’s ordinance to prevent or obstruct that project. While this is possible, the courts would need to recognize a substantial change in the law in order for such local action to be upheld.

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39Id. 
40Id. at 6. 
41Id. at 6-7. 
42PSC Chapter 184, Wis. Admin. Code. 