

REGIONAL WATER SUPPLY PLAN FOR SOUTHEASTERN WISCONSIN



SUMMARY BROCHURE

DECEMBER 2008

A preliminary recommended plan for water supply in southeastern Wisconsin through the year 2035 has been completed for public review. This brochure very briefly summarizes a few key elements of that plan. A series of detailed newsletters, plan chapters, Advisory Committee minutes, and other materials are also available at www.sewrpc.org/watersupplystudy.

Why a Regional Water Supply Plan is Important

Few things affect our regional vitality and quality of life as much as clean and sustainable sources of water for public and private uses. Everything from drinking water to sanitary waste disposal, industrial and commercial needs to water-based recreation, and fighting fires to irrigating lawns, gardens, and croplands are reliant upon our water supply. It is true that we live in a generally “water rich” region. However, natural environmental limitations combined with overuse of some water sources and underused reserves of other sources requires proper planning and sound management. If we as a region are to grow and realize our competitive economic advantages tied to water, then we must act wisely. The Regional Water Supply Plan is designed to help us do so.

Major Plan Components

The following were identified and evaluated:

- Water supply service areas and forecast demand for water use.
- Water conservation efforts to reduce demand.
- Alternative sources of water supply and basic infrastructure to deliver that supply.
- Groundwater recharge areas to be protected.

The map on the reverse side shows the preliminary recommended plan for water supply in the Region through the year 2035, after careful consideration of the above components.

Some Key Water Supply Plan Recommendations

The preliminary recommended plan is a composite plan combining the best elements of the alternatives that were considered. Some of the key elements are:

- **Comprehensive water conservation programs** including both supply side efficiency measures and demand side water conservation measures would be implemented on a utility-specific basis. Expected reductions in demand vary from 4 to 10 percent on an average daily basis and from 6 to 18 percent on a maximum daily basis.
- **A groundwater recharge area protection component** would preserve areas classified as having a high or very high recharge largely through implementation of the adopted year 2035 regional land use plan. That plan recommends preservation of the environmental corridors, isolated natural areas, prime and other agricultural areas that benefit groundwater recharge by allowing precipitation to infiltrate or soak into the ground. About 74 percent of the highly rated and very highly rated recharge areas are thus expected to be preserved. Careful design of new development and stormwater management practices should increase this amount.
- **Mostly continued use of existing water supply sources**—with supply facility expansion—would prevail for the vast majority of water utilities. Certain areas of existing urban development currently served by private, onsite wells would be provided with municipal water supply when need is demonstrated and at the option of the affected areas. Absent a demonstrated need, residents and businesses of these areas would remain on individual wells
- **Strategic conversion to Lake Michigan as a source of water supply** (green areas on the map) is recommended for nine communities which currently have return flow to Lake Michigan in place. Seven of these—the eastern portion of the City of Brookfield, the City of Cedarburg, the Village of Elm Grove, the Village of Germantown, the Village of Grafton, the Village of Saukville, and the Town of Yorkville—are located east of the subcontinental divide. Two—the central portion of the City of New Berlin and the City of Muskego—straddle the divide and have existing return flow via the Milwaukee Metropolitan Sewerage District. In addition, Lake Michigan water is recommended for the City of Waukesha—located in a county straddling the divide—which would require establishment of return flow.

Conclusion

The preliminary recommended plan represents a flexible means of providing a sustainable water supply for the Region through 2035, consistent with the Great Lakes Compact and with the groundwater protection provisions of the *Wisconsin Statutes*. Under this plan, presently reduced water levels in the deep source of groundwater may be expected to recover significantly over most of the Region. The impacts on total streamflow are expected to be minimized. Based upon public review and reaction, this preliminary recommended plan will be refined as necessary to produce a final recommended plan.

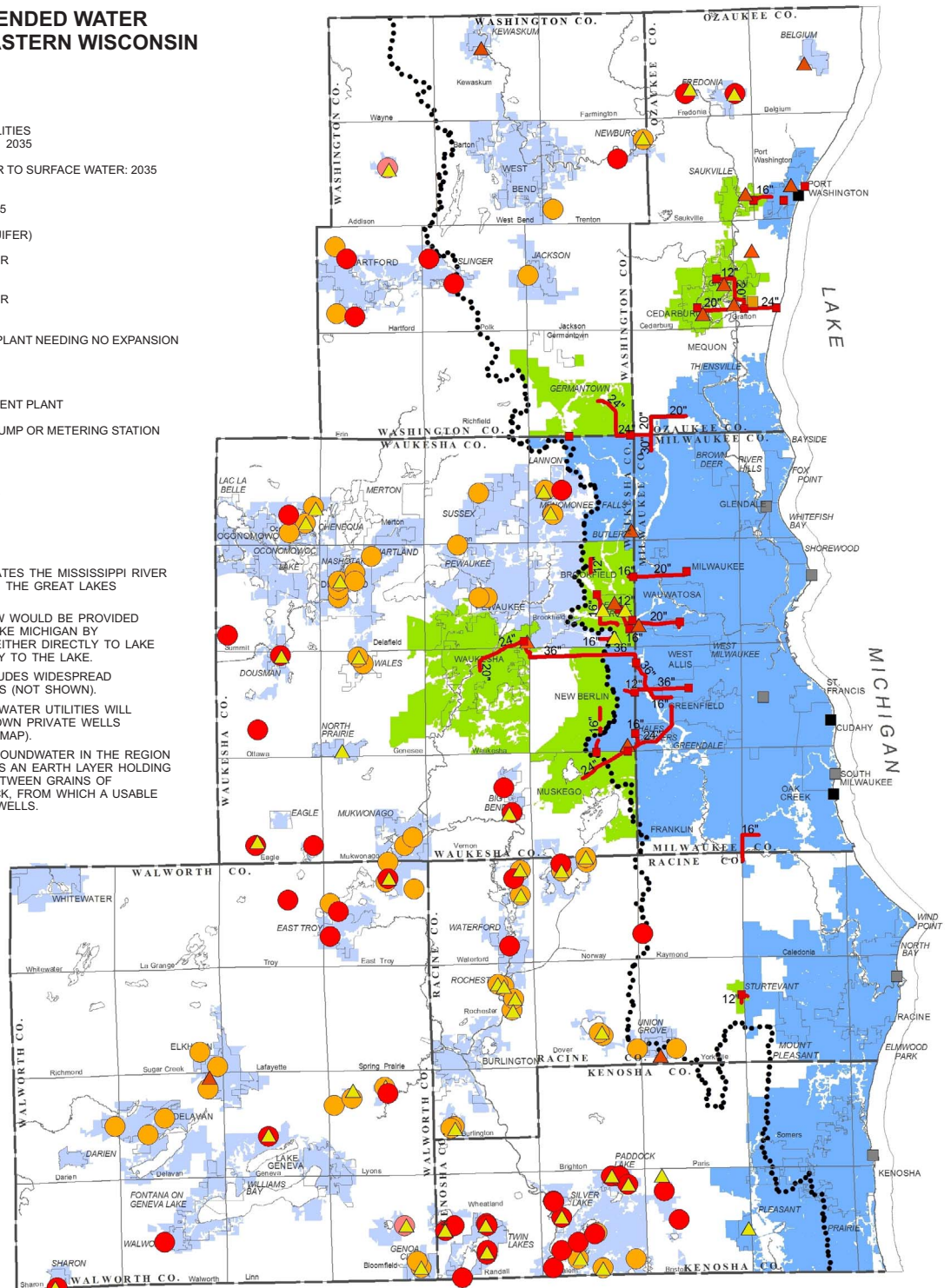
Public comments are welcome through March 16, 2009, by mail – SEWRPC, P.O. Box 1607, Waukesha, WI 53187; fax – (262) 547-1103; email – rbiel@sewrpc.org; or online at www.sewrpc.org/watersupplystudy. Further information is available online or by calling (262) 547-6721.

PRELIMINARY RECOMMENDED WATER SUPPLY PLAN FOR SOUTHEASTERN WISCONSIN

LEGEND

- AREAS SERVED BY MUNICIPAL WATER UTILITIES PROVIDING WATER FROM LAKE MICHIGAN: 2035
- AREAS CONVERTED FROM GROUNDWATER TO SURFACE WATER: 2035
- AREAS SERVED BY MUNICIPAL WATER UTILITIES PROVIDING GROUNDWATER: 2035
- PLANNED MUNICIPAL WELL (SHALLOW AQUIFER)
- PLANNED MUNICIPAL WELL AND RESERVOIR STORAGE FACILITY (SHALLOW AQUIFER)
- PLANNED MUNICIPAL WELL AND RESERVOIR STORAGE FACILITY (DEEP AQUIFER)
- EXISTING MUNICIPAL WATER TREATMENT PLANT NEEDING NO EXPANSION
- EXISTING MUNICIPAL WATER TREATMENT PLANT TO BE EXPANDED OR UPGRADED
- PLANNED NEW MUNICIPAL WATER TREATMENT PLANT
- PLANNED NEW OR MODIFIED MUNICIPAL PUMP OR METERING STATION
- PLANNED MUNICIPAL ELEVATED TANK
- PLANNED MUNICIPAL REPUMP RESERVOIR
- PLANNED WATER TRANSMISSION MAIN
- SUBCONTINENTAL DIVIDE

- NOTES:
- THE SUBCONTINENTAL DIVIDE SEPARATES THE MISSISSIPPI RIVER DRAINAGE BASIN TO THE WEST FROM THE GREAT LAKES DRAINAGE BASIN TO THE EAST.
 - IT IS ENVISIONED THAT RETURN FLOW WOULD BE PROVIDED FROM THE CITY OF WAUKESHA TO LAKE MICHIGAN BY RETURNING TREATED WASTEWATER EITHER DIRECTLY TO LAKE MICHIGAN OR TO STREAMS TRIBUTARY TO THE LAKE.
 - THE RECOMMENDED PLAN ALSO INCLUDES WIDESPREAD GROUNDWATER RECHARGE MEASURES (NOT SHOWN).
 - RESIDENCES OUTSIDE OF MUNICIPAL WATER UTILITIES WILL CONTINUE TO BE SERVED BY THEIR OWN PRIVATE WELLS (MOSTLY RURAL AREAS IN WHITE ON MAP).
 - SHALLOW AND DEEP SOURCES OF GROUNDWATER IN THE REGION ARE CALLED AQUIFERS. AN AQUIFER IS AN EARTH LAYER HOLDING ADEQUATE UNDERGROUND WATER BETWEEN GRAINS OF SAND/GRAVEL OR CRACKS IN BEDROCK, FROM WHICH A USABLE WATER SUPPLY CAN BE PUMPED VIA WELLS.



Source: Ruekert & Mielke, Inc. and SEWRPC.