

City of New Berlin Lake Michigan Water Diversion Project

New Berlin became the first community in the nation to receive an approved diversion of Great Lakes water under the newly approved Great Lakes Compact.

History was made on May 21, 2009, when the City of New Berlin became the first community in the nation to gain approval for the diversion of 2.142 million gallons per day of Lake Michigan water under the Great Lakes Charter Annex agreement. The dramatic negotiations that took place over the course of many years, coupled with engineering planning that had to take into account multiple, probable scenarios to solving the City's radium problems, are highlights of the project.

The study, analysis and application process was comprehensive and evaluated all the available options for providing radium-free, Lake Michigan water to the City. New Berlin is a "straddling" community – with the Sub Continental divide running north/south through the middle of the City. The western portion of the City lying in the Mississippi River Basin could not divert Lake Michigan water without adoption of the newly revised Great Lakes Compact approval by the Wisconsin Department of Natural Resources, and the cooperation of the City of Milwaukee. Because of the environmental sensitivity of the issue, an extensive effort was made.

Ruekert/Mielke retrofitted most of the City of New Berlin's water facilities to accommodate the Lake Michigan water diversion. The firm also completed a required Water Supply Service Area Plan that extended until 2029. This service area plan was the first study completed under the new Wisconsin Diversion Law. The successful diversion of Lake Michigan water to the City of New Berlin completed a nearly 10-year quest to solve short and long-term water issues for the citizens of the City and will provide a template for the other states that border the Great Lakes to follow.

The City's water woes with radium contamination are nothing new. Radium concentrations in the deep sandstone aquifer, where many municipal systems in Waukesha County and eastern Wisconsin draw water, have been above Maximum Contaminant Levels (MCL's) since the radionuclide rule was originally adopted in 1976. For a variety of reasons, the rule was not enforced until it was reissued in 2001. As water usage has grown to meet the demands of an expanding population, new deep wells were needed to supply water to New Berlin. Enforcement of the radium rule resulted in New Berlin agreeing to a solution of either gaining access to Lake Michigan water or installing expensive treatment plants at the wells. A negotiated 2006 deadline for compliance put further pressure on New Berlin and other communities to meet the new limits or face enforcement actions for non-compliance.