December 6, 2006

To:	John Stolzenberg and Rachel Letzing Wisconsin Legislative Council
From:	Ann Beier, Director, Office of Environmental Sustainability
Re:	Requested Clarification of Language on Return Flow Provisions for Diversions

The City of Milwaukee appreciates the opportunity to comment on specific issues in the current draft legislation that should be addressed as the State Legislature moves forward in considering adoption of the Great Lakes Water Resources Compact. The City of Milwaukee is concerned that the current language relating to return flows does is not specific enough to protect the waters of the Great Lakes Basin.

In acting together to adopt the Great Lakes Compact, the parties to the Compact recognized that they: "have a shared duty to protect, conserve, restore, improve and manage the renewable *but finite waters of the basin* for the use, benefit and enjoyment of all their citizens, including generations yet to come" (section 281.343 (1m)(a)6.), (emphasis added). To that end they also agreed that they were entering into the Compact to achieve many laudable purposes including: "To prevent significant adverse impacts of withdrawals and losses on the basin's ecosystems and watersheds" (section 281.343(1m)(b)6.). The parties also acknowledged that: "lack of full scientific certainty should not be used as a reason for postponing measures to protect the basin ecosystem (section 281.343(1m)(b)1.).

In carrying out these objectives the parties not only intended to limit the circumstances in which diversions from the Great Lakes Basin may occur but also required that:

"All water withdrawn from the basin shall be returned, either naturally or after use, to the source watershed less an allowance for consumptive use" (sections 281.343(4n)(a)1. and (4n)(d)3.); and, see also, "Maximizing the portion of water returned to the source watershed as basin water and minimizing the surface water or groundwater from outside the basin" (section 281.343(4n)(c)1.b.)

In furtherance of the objectives to prevent or minimize water losses to the Great Lakes basin **and** prevent adverse impacts to the basin ecosystem the following changes are recommended:

## Sections 281.343(4n)(a) 1. and (4n)(d) 3.

After the first sentence in each of the referenced sections which state: "All water withdrawn from the basin shall be returned, either naturally or after use, to the source watershed less an allowance for consumptive use". Add the following:

The applicant shall return water withdrawn from the basin as close as possible to the point of the initial withdrawal from the source watershed, unless it can be shown that it is not feasible, and not cost effective and not environmentally sound to do so. In documenting how the return of the Great Lakes Basin waters back to the source watershed will be maximized the applicant communities must also demonstrate how the natural flow regimes and the physical, chemical and biological integrity of the source watershed will be protected.

In those instances where an applicant is proposing to return diverted Great Lakes water back to the source watershed through a river, stream or surface body of water that is connected to the source watershed, the applicant must document how the physical, chemical and biological integrity of the receiving waters will be protected and sustained as well as addressing how the return flow impacts on the receiving waters' will be minimized including minimizing the impacts on the magnitude, frequency, timing duration, rate of change and predictability of natural flow events of the receiving waters.

In meeting these provisions for return flow, applicants are also expected to fully comply with all applicable laws and agreements as provided for in section 281.343(4n)(d)6.

For background on an approach to determining environmental flow requirements for river ecosystems see: Angela Arthington et al, "The Challenge of Providing Environmental Flow Rules to Sustain River Ecosystems, *Ecological Applications*, Vol. 16 No. 4, 2006, pp1311-1318 by the Ecological Society of America.

If you have any questions on these suggested changes, please contact me at 414-286-3351.

cc: Patrick Curley