

MEMO

To: Groundwater Advisory Committee, Technical Advisory Committee, DNR
From: M. Carol McCartney
Cc: Groundwater Advisory Committee, Technical Advisory Committee, DNR
Re: Recommendations and Rationales for the GWAC Draft Report
Well Approval Process (Task B)

RECOMMENDATION #1:

The Legislature should direct the DNR to develop rules that outline a transparent and rational process for regulatory decisions on high-capacity well approvals.

RATIONALE:

The rules should be supported by technical guidance documents that are freely available to the regulated community. The purpose of the rules and guidance documents is to allow the regulated community to identify themselves and to prepare applications for high capacity wells that demonstrate they do not have a significant environmental impact. Upon review by the agency, those applications can be approved without further analysis or delay. DNR staff will review the applications and approve them if they do not have a significant environmental impact. The technical guidance documents should be based on science and hydrogeologic judgment.

RECOMMENDATION #2:

It should be the responsibility of the applicant to prepare the demonstration of “no significant impact” for the proposed well following the rules and guidance documents developed by the DNR.

RATIONALE:

The burden of proof should rest on the users of the resource to demonstrate that their use does no significant harm. The role of the DNR, after writing the rules and guidance documents, should be in enforcement and education.

RECOMMENDATION #3:

The Legislature should direct DNR to develop rules and guidance documents for high capacity well applications that require applicants to employ quantitative analyses.

RATIONALE:

Groundwater flow models have recently been developed, and will continue to be developed, for many important areas of Wisconsin, and can serve two purposes in predicting the impacts of proposed wells. First, the models can be used to directly

simulate proposed wells and their potential impacts on nearby water levels and surface water flows. Models have the advantage of being able to simulate the combined influence of multiple wells over large areas. Second, models serve as databases of hydrogeologic information specific for the modeled areas. Existing groundwater flow models cover the following areas of the state (model developer in parentheses). These models are in the public domain and are available for use by high capacity well approval applicants or DNR personnel.

Dane County (WGNHS)	Eau Claire County (UW-Eau Claire)
La Crosse County (USGS)	Sturgeon Bay area (WGNHS)
SEWRPC Counties (Waukesha, Washington, Racine, Kenosha, Walworth, Milwaukee, Ozaukee; USGS, WGNHS)	West Bend area (WGNHS)
Sauk County (WGNHS, USGS)	Fox Cities area, Winnebago, Outagamie Counties (USGS)
Polk, St Croix, Pierce Counties (USGS)	Fond du Lac County (UW-Milwaukee)
Rock County (WGNHS)	Lake Geneva area (WGNHS)
Central Sand Plains (GWGC)	Brown County (WGNHS)
	Eagle area, SW Waukesha County (WGNHS)

RECOMMENDATION #4:

The legislature should direct the DNR to prepare rules and technical guidance documents for high capacity well applications with the assistance and input of a science advisory committee consisting of representatives of the state and federal geological surveys and that the draft rules and guidance documents be prepared within two years.

RATIONALE:

DNR staff have considerable expertise in hydrogeology and DNR regularly uses the resources provided by other agencies. Specifically hydrogeologic data, reports and maps prepared by scientists at the Wisconsin Geological and Natural History Survey (WGNHS) and the U S Geological Survey (USGS) summarize and interpret the hydrogeologic data for a region or county. Indexes to these materials are available online at the following web sites:

WGNHS: <http://www.uwex.edu/wgnhs/maps.htm>

USGS: <http://wi.water.usgs.gov/pubs/index.html>

RECOMMENDATION #5:

The guidance documents should include a database of groundwater input parameters compiled in a format that is readily accessible and that is adaptable to new input.

RATIONALE:

The results of hydrogeologic models are dependant upon the input of hydrogeologic data and a database of useful input parameters can be accumulated from applications as they are received and reviewed. As these data are compiled, the well approval process can become adaptable to new input from the high capacity well approval system data and from the scientific literature and be adapted to a changing environment (such as droughts, floods, etc.), if necessary.