

For the November 1, 2007 GAC meeting from Todd Ambs

Based on discussions with Wisconsin hydrogeologists, presentations to the GAC and a review of available data on springs in Wisconsin, the GAC has concluded that additional field-verified data is necessary before considering modification of both the statutory definition of "spring" and the regulatory criteria applied to the protection of springs.

As the Springs subcommittee has shown in presentations this year, many springs have both aesthetic and ecological value, but do not meet or exceed the current 1 cubic foot per second ("cfs") discharge threshold established in the statutes. A criteria based on flow does not include many important of springs in the state. As indicated by the Wisconsin Wildlife Federation (*Inventory of Wisconsin Springs, August 2007*), "Springs are valuable features of many ecosystems, supplying water for many diverse habitats including streams, fen-meadows and wetlands. These spring habitats often harbor endangered and threatened species ... Springs provide the necessary habitat of cool, oxygen-rich water essential for trout survival." Data are also available to suggest that development, including operation of high capacity wells, may have adverse impacts on spring-fed water features. The subcommittee and its technical advisory group have also shown that the area from which groundwater flows to a particular spring can be complex and governed by local geology.

The inventories of springs compiled by the Wisconsin Wildlife Federation (WWF) and others represent a first step in understanding the location and natural resource significance of springs. While the extent of information is extensive, its value for setting policy and regulatory decisions is limited. It is generally agreed that the springs inventory needs to be updated, verified and expanded before considering modifications to existing policy.

The Groundwater Advisory Committee makes the following recommendations:

1. Funding should be made available for a long-term program enabling the DNR to maintain and update a spring's database. The data should be made available to the public.
2. The DNR should conduct field verification of spring sites with flows of at least 0.25 cfs as compiled in the *Wisconsin Springs Inventory* (Wisconsin Wildlife Federation) and in *Assessing the Ecological Status and Vulnerability of Springs in Wisconsin* (Swanson, S.K., Bradbury, K.R., and Hart, D.J.). Conditions in these springs will be partially field-verified as part of a multi-year project by the DNR. The DNR should explore funding this work through existing Act 310 funds.
3. To the extent feasible, the updated springs inventory should also note significant environmental/ecological aspects of each spring site visited. If possible, unique environmental settings such as calcareous fens and trout streams along with other important ecological features such as the presence of threatened and endangered species should be noted.
4. On January 1st following completion of the above mentioned field study or on the third January 1st after the effective date of new legislation, whichever comes first, the DNR shall form an advisory committee to review the results of the field study and, based on that updated information, advise the department on future policy decisions regarding protection of springs from impacts due to pumping high capacity wells. The committee shall be comprised of representatives similar to that of the Groundwater Advisory Committee established under 2003 Wisconsin Act 310.
5. By July 1st or not more than six months after the Advisory Committee is formed, the Committee should submit recommendations to the DNR Secretary concerning the need for modification of the definition of "spring" and other regulatory protection considerations related to springs. In making its recommendations, the advisory committee shall consider the updated springs inventory information compiled by the department and any other available information concerning springs in the state. Those recommendations could include both additional rule making as well as statutory changes to better protect springs in Wisconsin.