

## **Update from the Groundwater protection Area Technical Subcommittee Task A: Springs**

Date: 2/1/07

Subcommittee members: Ron Kuehn, Bob Nauta, Ken Bradbury, Jake Macholl, Sue Swanson

The Springs subcommittee met twice in January 2007. Currently the subcommittee is attempting to develop a consensus table for springs issues. The committee is also reviewing ongoing or recently completed spring research projects in Wisconsin.

Four projects are ongoing or recently completed; summarized as follows:

1. *Spring inventory in Iowa and Waukesha Counties* (Sue Swanson, Beloit College, ongoing). So far the project has identified 406 springs in Iowa Co and 265 springs in Waukesha Co, and has made site visits to many of these springs. Investigators are examining flow rates as well as geologic settings, chemical, and ecologic characteristics. So far, only 2 of about 50 springs surveyed meet the 1 CFS criteria.
2. *Statewide spring database* (Jake Macholl, Wisconsin Wildlife Federation, ongoing). A compilation of all known records of springs in the state, preparation of a GIS database, and map locations. Currently over 4000 springs identified. Making site visits to selected springs.
3. *Springs Survey of St Croix County* (Katherine Grote, UW-Eau Claire, complete). 1-year study of St Croix County located and surveyed 87 springs. 12 springs had discharge greater than 1 CFS (largest was 4 CFS). Prepared maps and descriptions, including photos, of all springs surveyed. Delineated contributing areas for springs over 1 CFS.
4. *Springs in Brown and Calumet Counties* (Kevin Fermanich, UW-Green Bay, complete). Surveyed springs and collected discharge, ecological, and chemical data. Found 41 springs, mostly along the Niagara Escarpment. No springs exceeded the 1 CFS criteria 80% of the time, though one exceeded it 25% of the time.

Topics/questions being discussed by the subcommittee include:

- Appropriate definitions for springs
- Classification of springs (several systems in use)
- Is the 1 CFS criteria reasonable? Other approaches?
- Ecological, historical, or unique values
- Proportion of springs currently protected (trout streams, public lands, etc)
- Technical viability of 1200 ft rule
- How to balance protection against groundwater development value
- Matrix methods for evaluation/decision making