

Illinois Water Inventory Program (IWIP): Water Use Reporting in Illinois

Since 1978, the Illinois State Water Survey (ISWS) has collected water use data from high capacity water users in the state under a voluntary program, the Illinois Water Inventory Program (IWIP). A survey has been sent out annually to every public water supply and self-supplied industry in the state asking them to provide total gallons of water pumped from each groundwater well and surface water intake capable of pumping more than 100,000 gallons a day (70 gallons per minute). Irrigation water use was estimated using rainfall deficit methods (the checkbook method), assuming 1.5 inches of rain needed a week during the growing season.

In 2010, the Illinois Water Use Act was amended to make reporting for all high capacity wells or intakes mandatory in Illinois, including agricultural irrigation. Ag irrigation was given five years to comply, which means that starting in 2015, irrigators are required to report their water use from both wells and surface water intakes. A high capacity well/intake is defined as a single point of withdrawal or a series of points that together pump more than 70 gallons a minute. A website will be available for online reporting in 2018. Paper forms are also available and should be used until the online system is ready.

Irrigators can provide an actual number of gallons pumped, if using a flowmeter, or estimate their water withdrawals using a method approved by the ISWS. The ISWS has identified two estimation methods that are both simple to use and allow irrigators to use the information from their systems to easily determine total gallons pumped:

1. The *acre-inches method* – Number of inches applied x acres x 27150 gallons per acre-inch
2. The *hours-flowrate method* – Number of hours ran x rated gallons per minute of system x 60min/hr.

The following website provides a simple handbook with examples and worksheets that explain what data are needed and assist irrigators in organizing their information throughout the year:

<https://www.isws.illinois.edu/groundwater-science/illinois-water-inventory-program/irrigation-reporting-information>

The IWIP program catalogs water use data by source, whether groundwater from a well or surface water from a lake, river, or stream, meaning total water pumped from each well and/or intake. Locations of each withdrawal point are a critical part of the data being collected. Irrigators are asked to provide GPS coordinates for each well and intake. A short video tutorial is available on the website that shows irrigators how to easily determine well/intake coordinates using Google Maps.

Confidentiality issues have been raised, and in response, the ISWS has developed a statement in cooperation with the Illinois Farm Bureau, that is included on the reporting form that an irrigator can sign that says they consider reported data to be confidential, proprietary, and privileged commercial information. Signing this statement gives the ISWS leverage to protect individual information. The ISWS will not publish individual data or report at a county or township scale if it clearly provides individual information.

The ISWS is not a regulatory agency, but was mentioned specifically in the Water Use Act to gather water withdrawal data because of their existing, voluntary IWIP program and their history of serving the needs of the citizens of Illinois related to water quantity and quality issues. Because the ISWS is a research and public service arm of the state and university, their goal is to collect accurate information. Located at the University of Illinois, the ISWS uses water withdrawal data to evaluate water resources and draw sound scientific conclusions about water issues that may arise, as well as evaluate future water needs in the state.

Questions?

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