

State of Indiana
Water Conservation and Efficiency Program Review
December 2, 2013

The State of Indiana submits the following Water Conservation and Efficiency Program review to the Regional Body and Compact Council pursuant to the requirements set forth in the Agreement Article 300 and Section 3.4.1 of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Compact (the Compact).

1. Lead agency/agencies:

The lead agency is the Indiana Department of Natural Resources (IDNR). The lead contact person is IDNR Deputy Director Chris Smith.

2. Water Conservation and Efficiency Goals and Objectives

Indiana's Lake Michigan Basin water conservation and efficiency goals are provided by Section 4.2.1 of the Compact that includes the basin-wide goals as follows:

- a. Ensure the improvement of the waters and water dependent natural resources of the Basin;
- b. Protect and restore the hydrologic and ecosystem integrity of the Basin;
- c. Retain the quantity of surface water and groundwater in the Basin;
- d. Ensure sustainable use of waters of the Basin; and
- e. Promote the efficiency of use and reduce losses and waste of water in the Basin.

The State of Indiana's water conservation and efficiency objectives are consistent with Indiana's Water Management Guidelines that "*recognizes that Indiana's abundant resources are a public good for all citizens of the State, and promotes the efficient use of this water by encouraging environmentally sound and economically feasible conservation measures to ensure availability for future generations*".

3. Water Conservation and Efficiency Program Overview;

Also Available at: www.in.gov/dnr/water/6364.htm

The following statutory provisions will be applicable to the Water Conservation and Efficiency program in the State of Indiana are as follows:

- Great Lakes-St. Lawrence River Basin Water Resources Compact (IC 14-25-15)—Interstate agreement on the use of water resources in the Great Lakes-St Lawrence River basin.
- Indiana legislation for Voluntary Conservation and Efficiency (14-25-15-5)—Enacts and implements the Compact, and calls for the Indiana Natural Resources Commission to adopt rules that implement voluntary water conservation and efficiency programs.
- Significant Water Withdrawal Facility Registration (IC 14-25-7-15)—Requires that an inventory of significant uses of water withdrawn from the surface or ground is taken and maintained. Section 15 of the act requires that every person who owns a significant water withdrawal facility (SWWF) shall register it within three (3) months after the facility is completed. A "significant water withdrawal facility" is defined in the act to mean "the water

withdrawal facilities of a person that, in the aggregate from all sources and by all methods, has the capability of withdrawing more than one hundred thousand (100,000) gallons of ground water, surface water, or ground and surface water combined in one (1) day". Owners of a SWWF must also report annual water use within three (3) months after the end of each calendar year. Approved methods of measuring the amount of water withdrawn by a SWWF are specified in the Nonrule Policy Document Information Bulletin #40. Water withdrawals from temporary construction dewatering operations must also be reported in accordance with IC 14-25-7.

- Sale of Water (IC 14-25-2 and Rule 312 IAC 6.3) Conservation planning is required in the application for the sale of water from any Reservoir financed fully or in part by the State.
- Emergency Regulation of Ground Water Rights (IC 14-25-4 and Rule 312 IAC 12) Owners of small capacity water wells are protected against the impacts of high capacity ground-water pumpage if it substantially lowers water levels, resulting in the failure of a small capacity well. Restrictions of high capacity pumping can occur when it is believed that discharge exceeds the recharge capability of the source aquifer
- Emergency Regulation of Surface Water Rights (IC 14-25-5 and Rule 312 IAC 11.5) Freshwater lake owners are protected against the impacts of high capacity pumping if it substantially lowers the level of the freshwater lake, resulting in significant environmental harm to the lake or adjacent property. Restriction of high capacity pumping can be required in order to restore lake level.
- Water Shortage Plan (Authorized by IC 14-25-14, since repealed)—Ten-member Water Shortage Task Force was charged with updating and implementing Indiana's Water Shortage Plan that provides an effective and systematic plan to assess and manage the State's water resources during a water shortage or potential water shortage to respond, to the maximum extent practicable, to the needs of its water users while protecting the environment. Indiana's Water Shortage Plan update was completed in 2009.

4. Promotion of Environmentally Sound and Economically Feasible Water Conservation Measures, Consistent with Regional Objectives.

- **Measures that guide programs toward long-term sustainable use.**
 - Statewide registration and water use reporting program under IC 14-25-7-15 of over 3,800 facilities under the water use categories of Energy Production, Industrial, Irrigation, Public Water Supply, Rural and Miscellaneous.
 - Detailed river basin studies for the Indiana portion of the Great Lakes Basin (Lake Michigan Region, St. Joseph River Basin, Maumee River Basin) by the Indiana Department of Natural Resources, Division of Water. These studies provide detailed information regarding the availability, development, protection and projected use of the ground water and surface water resources of each river basin.

- Best Management Practices (BMPs) for each registered water use category have been developed and distributed to all registered SWWFs within the Great Lakes Basin and statewide. The identification of applicable BMPs was completed with the use of industry standards and input from SWWF representatives, area water user groups, environmental groups, private sector water management firms, academia, and area planning commissions.
- The Water Management Planning Framework is a live, fill in the blank style document that was drafted specifically for use by each of the water use categories in the SWWF registration program. The document is available online to assist water users with their conservation planning efforts, especially those registered as SWWFs. The framework is directed as a guidance document at those facilities that may not currently have conservation strategies as part of daily operating procedures. It encourages facilities to more readily develop & implement conservation and efficiency programs on a voluntary basis by walking them through the water audit process, the identification of areas of potential water savings, to develop fundamental conservation and efficiency strategies, and the selection of applicable BMPs.
- Provision of a summary of the 2010 BMP checklist survey results to all SWWFs located in the Great Lakes Basin, as well as statewide. The survey purposes were to: 1) to gather data on conservation and efficiency efforts of all Indiana SWWFs; and 2) share information on BMPs, water management practices, new technology, and other pertinent topics relevant to conservation and efficiency efforts.
- The 2011 survey sought to acquire more specific information about ‘planned’ conservation and efficiency within a facility. Since education was the most commonly indicated future or ‘planned’ strategy by SWWFs who responded to the 2010 survey, it was relevant to find out how these educational strategies would be implemented. The survey also asked facility representatives to indicate what was felt to be a reasonable voluntary reduction goal, and to identify any previously achieved reduction in water use resulting from implementation of conservation and efficiency strategies or BMPs. Email addresses were also requested as part of the responses to improve communication efficiency with registered facilities. The mailer also included information on the implementation of LSA Document # 13-532(E) regarding the permitting of water withdrawals within the Great Lakes Basin that exceed the established thresholds set forth in IC 14-25-15-7.
- 2012 water use mailing provided summary of results of previous year’s survey to registered SWWFs, both in the Indiana portion of the Great Lakes Basin as well as Statewide, on the progress toward permanent rule adoption of LSA Document #13-335(W) regarding the permitting of water withdrawals and on voluntary water conservation and efficiency programming within the Great Lakes Basin that exceed the established thresholds set forth in IC 14-25-15-7.
- In 2013 the water use mailing was again a vehicle to gather data on current conservation and efficiency practices by SWWFs. An electronic version of the

checklist survey has been made available online to gather a comparison dataset to the results from the original 2010 survey, and to especially gather data on status of the previously 'planned' conservation and efficiency BMPs utilized by SWWFs.

- **Promote the efficient use and conservation of water.**
 - Implementation of educational mailings to registered SWWFs to communicate the importance of water use efficiency and conservation practices. The educational mailings are ongoing, utilizing the long established correspondence for SWWF annual water use reporting as a vehicle for providing information on conservation and efficiency.
 - Encouraging use of universal water metering programs, including water audits, to identify leaks, waste, and opportunities for water savings in all educational items.
 - *Indiana's Water Management Guidelines* recognize that Indiana's abundant water resources are a public good for all citizens of the State, and promotes the efficient use of this water by encouraging environmentally sound and economically feasible conservation measures to ensure availability for future generations.
 - Development of a Statewide Water Management Plan that promotes improvements in water management practices, such as watering lawns, gardens, and farm fields efficiently, using water efficient fixtures in homes and businesses, using drought resistant landscape practices, and using reclaimed or lower quality water for irrigation, industrial, and other appropriate non-potable uses.
 - Suggested Model Ordinance—The Model Conservation Ordinance describes a suite of measures including good water management practices at all times, potential price increases for water during times of shortage, and enforced rationing during periods of extreme water shortage. While some of the measures in the ordinance may not apply in all situations or locations, the purpose of the measures is to encourage wise use of the resource and to minimize the impacts of seasonal or short-term water shortages.
 - Conservation and efficiency programs are mandatory as part of a permit application for any new or increased withdrawals or diversions under the Compact by Emergency Rule LSA Document #13-532(E) which became effective on November 1, 2013. The permanent rule, LSA Document #13-335(W), will be presented for permanent adoption by the Natural Resources Commission in April 2014.
 - Promotion of water conservation and efficiency utilizing the EPA *Water Sense* and *We're for Water* programming at area water related conferences, seminars, and for the three weeks of the Indiana State Fair in both 2012 & 2013.
 - Promotion of water conservation and efficiency under the GLC in partnership with area agricultural extension offices and county Soil and Water Conservation Districts. Meetings took place particularly in the Northern & Northwestern regions of the State where predominant use of water is for agricultural purposes. Meetings were typically

attended by area irrigators, potential irrigators, members of the public and county officials.

- **Develop water conservation education programs and information sharing.**

- ‘Water Conservation and Efficiency Clearinghouse’ available online (www.in.gov/dnr/water/6364.htm) which outlines the historical process of implementation of the Great Lakes and St. Lawrence River Basin Water Resources Compact, corresponding permit rule and conservation and efficiency rule development, and subsequent posting of permanent rules once adopted.
- Educational and printable material available and made conveniently accessible to public, water users, SWWFs, and various stakeholders on Indiana’s water conservation and efficiency clearinghouse website.
- Significant Water Withdrawal Facility (SWWF) data is accessible from and linked to conservation and efficiency clearinghouse.
- Website clearinghouse includes links to other conservation programs, including the EPA’s *Water Sense* program.
- Indiana registered SWWFs surveyed on current water conservation and efficiency efforts and water management practices and those that are planned for implementation in the future. Included with the 2011 annual water use report form, the survey received a 54% response rate from facilities within the Great Lakes Basin. (Acquired data accessible from website clearinghouse.)
- Continue to build on the success of surveys and communications associated with annual water use reporting. Use of ongoing process of surveying facilities and building the database to track the implementation of new or revised conservation strategies by SWWFs. The survey program will show the movement of conservation and efficiency strategies and BMPs formerly indicated as ‘planned’ and moving to the ‘current’ category in a facility.
- Utilizing social media to promote conservation and efficiency. A series of “Talk with an Expert” events on the Indiana DNR Facebook page to discuss water use issues in Indiana, focusing on providing information about agricultural irrigation, including historical use and generalized location data, general conservation and efficiency practices suggested for managing water used for irrigation purposes, & Indiana’s water use laws and protections provided for owners of domestic (home) wells when they are impacted by irrigation pumping.
- A new, GIS-based map has been added to the Division of Water’s website, showing the locations of Significant Water Withdrawal Facilities (SWWFs) and their associated withdrawal sources (groundwater wells and/or surface water intakes). Users can zoom to a specific county and see the locations of registered SWWFs. The interactive map allows users to click on a facility point to quickly view information

regarding the facility, including the owner name, total capacity (MGD), and a count of withdrawal sources. As the user scrolls in further, the withdrawal sources associated with each facility become visible, allowing users to easily see the specific locations of the sources. The wells and intakes are also color-coded based on the Major Water Use category the facility falls under (Energy Production, Industry, Irrigation, Public Supply, Rural Use, or Miscellaneous). As with the facility points, when a user clicks on an individual source point, they can quickly view the features of each source, including depth, diameter, and capacity (GPM) for wells and water body source and capacity (GPM) for intakes. The SWWF registration information (along with the last three years of reported water use data) is also available for download either by county or for the entire state in Excel spreadsheet format on the Division of Water's website.

- **Improve monitoring and standardize data reporting:**

- SWWF water use data was first made available online in 2005 that provides annual summaries and withdrawal data for the previous five years. The data is updated annually.
- Best Management Practices developed specifically for each SWWF water use category will allow standardized comparisons of implemented and planned conservation and efficiency efforts, with input from SWWF representatives, area water user groups, environmental groups, private sector water management firms, academia, and area planning commissions.
- The online submittal portal for Indiana SWWF annual water use data has completed testing. The electronic water use reporting system is currently being used by facilities in the effort to facilitate and standardize data reporting. The online reporting system was tested initially for 2012 water use reporting, with very few issues encountered. Reporting for 2013 is underway by those in the irrigation category. Water use data for all categories is due by March 31, 2014.
- Indiana DNR staff participated on the expert panel for the Council of Great Lakes Industries (CGLI) Water Stewardship project to develop tools that may be utilized by Great Lakes industries to optimize internal water use and management, demonstrate good water stewardship, and support efforts to utilize a transparent process to disclose water use to complement other tools used for regulatory water use reporting and implementation of the Great Lakes Compact.

5. The State of Indiana's timeline for implementation of voluntary Water Conservation and Efficiency Program.

- Indiana intended to meet its obligations under Section 4.2 of the Compact, including development of water conservation and efficiency goals and objectives consistent with the

basin wide goals and objectives by December 8, 2010 (two years from the effective date of the Compact). The goals and objectives outlined in the Compact have been incorporated by reference within LSA Document #13-335W that will go before the Natural Resources Commission for anticipated adoption in April, 2014.

- Public outreach and input regarding development of Indiana's voluntary Water Conservation and Efficiency Program has been utilized, and feedback from SWWF's will continue to shape the program through the coming year(s).
- Meetings continue with the Michiana Irrigation Association, the Indiana Ground Water Association, Northwest Indiana Regional Plan Commission, Indiana Steel Producers Environmental Working Group and the Indiana Rural Water Association for available outreach opportunities and input as the conservation and efficiency program continues to develop and evolve.
- The Department of Natural Resources anticipates completing work with the Natural Resources Commission for the adoption of LSA Document #13-335W which will implement permitting and voluntary water conservation and efficiency programs for facilities applying for new or increased withdrawals, diversions, and consumptive uses in April, 2014.