# State of Indiana Water Management Program Review December 8, 2009

The State of Indiana submits the following Water Management Program Review to the Regional Body and Compact Council pursuant to the requirements in the Agreement Article 300 and Section 3.4 of the Great Lakes-St. Lawrence River Basin Water Resources Compact.

## 1. Lead Agency and Contact Persons

Indiana Department of Natural Resources; Ron McAhron, Deputy Director, IDNR; Kari Evans, Chief Legal Counsel, IDNR

- 2. Water Management Program Implementing Laws, Regulations and Policies
  The following statutory provisions and Policies will be applicable to or used to
  inform development of the Water Management Program in the State of Indiana:
- 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.
- Water Resource Management (IC 14-25-7)—Section 13 requires that an inventory of the water resource in Indiana be conducted and include an assessment of the following: 1) The capabilities of streams to support instream and withdrawal uses and of aguifers to support withdrawal uses; 2) Low stream flow characteristics; 3) Existing uses and projections of beneficial use requirements; 4) The potential in watersheds for managing flood water for beneficial uses; 5) Potential sources and amounts of surplus water for transfers; 6) Other assessment and information considered necessary to properly define water resource availability. Section 14 allows for the determination and establishment of minimum flows of streams and minimum level of ground water in aquifers. Section 15 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 Approved methods of measuring the amount of water withdrawn by a SWWF are specified in the Nonrule Policy Document Information Bulletin #40.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, Rule 312 IAC 6.3)—Conservation planning required in application for the sale of water from Reservoir financed fully or in part by the State.

- Emergency Regulation of Groundwater (IC 14-25-4)—Owners of small capacity water wells are protected against the impacts of high capacity groundwater 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)—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 Task Force (IC 14-25-14)—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 was updated in 2009.
- Water Resources Task Force (14-25-16)—Ten-member Water Resources Task Force established to study and make recommendations on the following issues with a focus on water availability as an economic and environmental necessity:

  1) Available quantities and sources of water; 2) Future needs; 3) Resource management; 4) Determination of ownership rights, particularly in ground water; 5) Drinking water delivery systems; and 6) Opportunities to work with neighboring states concerning shared drinking water sources.
- Water Well Drilling Contractors (IC 25-39)—Requires licensing of water well drillers and submittal of records of water wells providing information regarding geology and ground water availability. Water well records are made available to the public on the IDNR, Division of Water webpage.
- Indiana's Water Management Policy—Developed by Indiana's Water Shortage Task Force declaring that "Indiana's water resources are public goods that generate benefits for all citizens of the State. The wise use of water through environmentally sound and economically feasible water management practices is essential to maximize the benefits obtained from water resources and sustain them for future generations. To achieve these goals, Indiana promotes the following:
  - 1) Public Education and outreach that identifies appropriate water management practices and water conservation methods;
  - 2) Appropriate water pricing and incentives;
  - 3) Identification and dissemination of water management practices, such as demand and supply analyses, that will increase water use efficiency;
  - 4) The application and sharing of available science and research regarding water

management, water conservation, and water use efficiency; and 5) Funding of a water management and water use efficiency program by user fees established by legislative directive.

# 3) Summary Description of the State of Indiana's Water Management Program Scope and Thresholds

- Reports on the Water Resource Availability in the Great Lakes Basin within the State of Indiana (St. Joseph River Basin-1987; Lake Michigan River Basin-1994; Maumee River Basin-1996) have been completed by the IDNR, Division of Water. The reports were completed in accordance with the Water Resource Management Act (IC 14-25-7) requiring that an inventory of the water resource (ground water and surface water) in Indiana be conducted and include an assessment of the following: 1) The capabilities of streams to support instream and withdrawal uses and of aquifers to support withdrawal uses; 2) Low stream flow characteristics; 3) Existing uses and projections of beneficial use requirements; 4) The potential in watersheds for managing flood water for beneficial uses; 5) Potential sources and amounts of surplus water for transfers; 6) Other assessment and information considered necessary to properly define water resource availability. Section 14 allows for the determination and establishment of minimum flows of streams and minimum level of ground water in aquifers.
- Maps of Unconsolidated and Consolidated Aquifer Systems of all counties located within the Great Lakes Basin are scheduled to be completed by the Department of Natural Resource, Division of Water, by February, 2010, and will be made available on the IDNR webpage.
- Significant water withdrawal facilities (SWWF) shall be registered within three (3) months after the facility is completed in accordance with IC 14-25-7. 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. Water use data, identified as ground water or surface water, is reported in the following categories:
  - o Agricultural and Irrigation (IR)—Crop and golf course irrigation, farm field drainage, agricultural services, etc;
  - o Industry (IN)—Process water, cooling water, mineral extraction (except coal), quarry dewatering, waste assimilation;
  - Public Supply (PS)—Public water supply, drinking water and sanitary facilities;
  - o Energy Production (EP)—Power generation, cooling water, coal mining, geothermal, oil recovery;
  - o Rural Use (RU)—Watering of livestock, barn facilities, fisheries, etc.; and

- o Miscellaneous (MI)—Fire protection, amusement parks, construction dewatering, dust control, pollution abatement, hydrostatic testing, recreational field drainage, etc.
- In accordance with Section 7 of Indiana's implementation of the Great Lakes-St. Lawrence River Water Resources Compact (14-25-15), a person must obtain a permit from the IDNR for a daily withdrawal in excess of any of the following, calculated on average over any 90 day period: 1) five million (5,000,000) gallons from Lake Michigan surface water; 2) one hundred thousand (100,000) gallons from a salmonid stream; or 3) one million (1,000,000) gallons from any other surface water or groundwater source. Section 8 of the statute provides an exemption from the permit requirements if a withdrawal does not exceed the amount of baseline status determination.

# 4) Application of the Decision Making and Exception Standards for Withdrawals, Consumptive Uses and Diversions

- The State of Indiana intends to meet its obligations under Section 4.10 of the Compact by creating a program for the management and regulation of new or increased withdrawals and consumptive uses within the Great Lakes Basin by December 8, 2013. Proposals subject to management and regulation will also be declared to meet the Decision Making Standard under Section 4.12 of the Compact.
- Section 15 of IC 14-25-7 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.

# 5) Overview of the State of Indiana's Reporting and Database of Withdrawals, Consumptive Uses and Diversions

Annual reports of withdrawals are required from each SWWF facility in accordance with Indiana Code 14-25-7-15 (copy attached). Hard copy report forms are sent to each facility by the DNR (example attached). The completed report form is due by March 31<sup>st</sup> of the following year. At the current time there is no provision for electronic submission. Approved methods of measuring withdrawals are specified in the attached NRC Bulletin #40. Annual Water Use Reports are reviewed for accuracy when received and then entered into a database. After this additional edit reports are run against the digital data and corrections made where necessary.

- 6) State of Indiana's Initiatives to Support an Improved Scientific Understanding of the Waters of the Great Lakes Basin
- Maps of Unconsolidated and Consolidated Aquifer Systems of all counties located within the Great Lakes Basin are scheduled to be completed by the IDNR, Division of Water, by February 2010, and will be made available on the Division of Water's webpage.
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- Water Resources Task Force (14-25-16)—Ten-member Water Resources Task Force established to study and make recommendations on the following issues with a focus on statewide water availability as an economic and environmental necessity: 1) Available quantities and sources of water; 2) Future needs; 3) Resource management; 4) Determination of ownership rights, particularly in ground water; 5) Drinking water delivery systems; and 6) Opportunities to work with neighboring states concerning shared drinking water sources.





# Information Maintained by the Office of Code Revision Indiana Legislative Services Agency IC 14-25-7

Chapter 7. Water Resource Management

#### IC 14-25-7-1

## "Aquifer" defined

- Sec. 1. As used in this chapter, "aquifer" means an underground geologic formation that:
  - (1) is consolidated or unconsolidated; and
- (2) has the ability to receive, store, and transmit water in amounts sufficient for the satisfaction of any beneficial use.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-2

#### "Beneficial use" defined

- Sec. 2. As used in this chapter, "beneficial use" means the use of water for any useful and productive purpose. The term includes the following uses:
  - (1) Domestic.
  - (2) Agricultural, including irrigation.
  - (3) Industrial.
  - (4) Commercial.
  - (5) Power generation.
  - (6) Energy conversion.
  - (7) Public water supply.
  - (8) Waste assimilation.
  - (9) Navigation.
  - (10) Fish and wildlife.
  - (11) Recreational.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-3

#### "Ground water" defined

Sec. 3. As used in this chapter, "ground water" means all water occurring beneath the surface of the ground regardless of location and form.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-4

#### "Instream use" defined

Sec. 4. As used in this chapter, "instream use" means any use of water that uses surface water in place. The term includes the following uses:

- (1) Commercial and recreational navigation.
- (2) Hydroelectric power generation.
- (3) Waste assimilation.
- (4) Fish and wildlife habitat.
- (5) General recreation.
- (6) The maintenance of environmental and aesthetic values.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-5

#### "Person" defined

Sec. 5. As used in this chapter, "person" means an individual, an incorporated or unincorporated organization or association, a trustee or legal representative, the state, a political subdivision of the state, the United States of America, an agency of the state, a political subdivision of the state or of the United States of America, or a group of such persons acting in concert.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-6

#### "Reasonable beneficial use" defined

- Sec. 6. For purposes of this chapter, "reasonable beneficial use" means the use of water for a beneficial use in the quantity and manner that is:
  - (1) necessary for economic and efficient utilization; and
  - (2) both reasonable and consistent with the public interest.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-7

#### "Stream" defined

- Sec. 7. As used in this chapter, "stream" means a natural or an altered river, creek, slough, watercourse, or artificial channel that has:
  - (1) definable banks and bed capable of conducting defined runoff;
  - (2) visible evidence of the flow or occurrence of water; and
  - (3) a watershed greater than one (1) square mile in area.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-8

#### "Water resource" defined

Sec. 8. (a) As used in this chapter, "water resource" means all water:

- (1) on or beneath the surface of the ground; or
- (2) in the atmosphere.
- (b) The term includes the following:
  - (1) Streams.
  - (2) Impoundments.
  - (3) Diffused surface water.
  - (4) Water percolating, standing, or flowing beneath the surface of the ground.
  - (5) All boundary and coastal water within the jurisdiction of the state.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-9

## "Withdrawal use" defined

Sec. 9. As used in this chapter, "withdrawal use" means any use of water that involves the physical removal of the water from a

ground or surface source, including water from storage in an impoundment. *As added by P.L.1-1995, SEC.18*.

#### IC 14-25-7-10

#### Administration of chapter

Sec. 10. (a) The commission shall administer this chapter.

(b) The deputy director for water and resource regulation shall serve as technical secretary to the commission. The deputy director shall perform the duties that are required by this chapter or that the commission directs.

- (c) The advisory council established by IC 14-9-6-1 shall serve in an advisory capacity to the commission with respect to the implementation of the commission's powers and duties, including the drafting of rules and development of inventories, assessments, and plans.
- (d) For the time that the advisory council is involved in the drafting of rules, the membership of the council shall be augmented as follows:
- (1) Two (2) members of the senate, not more than one (1) of whom may be of the same political party, shall be appointed for a term of two (2) years by the president pro tempore of the senate.
- (2) Two (2) members of the house of representatives, not more than one (1) of whom may be of the same political party, shall be appointed for a term of two (2) years by the speaker of the house of representatives.

These members are entitled to travel expenses and a per diem allowance as determined by the budget agency for members of boards and commissions generally.

(e) The department shall provide professional, technical, and clerical personnel, equipment, supplies, and support services reasonably required to assist the commission in the exercise of the commission's powers and duties under this chapter. The department shall include money for this purpose in the regular operating budget requests of the department.

As added by P.L.1-1995, SEC.18. Amended by P.L.95-2006, SEC.9.

#### IC 14-25-7-11

#### **Duties of commission**

Sec. 11. The commission shall do the following:

- (1) Conduct a continuing assessment of the availability of the water resource.
- (2) Take and maintain an inventory of significant uses of water withdrawn from the surface or ground.
- (3) Plan for the development, conservation, and use of the water resource for beneficial uses.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-12

#### **Powers of commission**

Sec. 12. The commission may do the following:

- (1) Collect and disseminate information relating to the water resource.
- (2) Consult with and advise all users of the water resource as to availability of the water resource and the most practical method of water withdrawal, development, conservation, and use.
  - (3) Make the necessary investigations and inspections for proper administration of this chapter.
- (4) Enter at reasonable times with proper notice upon any property other than a dwelling place for the purpose of inspecting and investigating significant water withdrawal facilities or enforcing this chapter.
- (5) Establish, by rule, the criteria for the determination of minimum stream flows and minimum ground water levels.
- (6) When necessary for the proper administration and enforcement of this chapter, require the metering or other reasonable measurement of water withdrawals from significant water withdrawal facilities and the reporting of the metering or measurement to the commission.
- (7) Cooperate with other state and local agencies, other states and their state agencies, and agencies of the United States in water resource development, conservation, and use.
  - (8) Accept and administer money from any source to aid in carrying out this chapter.
- (9) Exercise the additional authority necessary to carry out this chapter.

As added by P.L.1-1995, SEC.18.

#### IC 14-25-7-13

#### Inventory of water resources; plans and recommendations

Sec. 13. (a) As used in this section, "surplus water" means that water found to exceed:

(1) existing uses; and

- (2) reasonably foreseeable needs; in the watershed of origin.
- (b) The commission shall make and maintain an inventory of the water resource of Indiana. The inventory must include an assessment of the following:
- (1) The capabilities of streams to support instream and withdrawal uses and of aquifers to support withdrawal uses.
  - (2) Low stream flow characteristics.
  - (3) Existing uses and projections of beneficial use requirements.
  - (4) The potential in watersheds for managing flood water for beneficial uses.
  - (5) Potential sources and amounts of surplus water available for transfers.
- (6) Other assessment and information considered necessary to properly define water resource availability.
  - (c) The commission shall maintain, on a continuing basis and with

opportunity for participation and consultation with all interested persons, plans and recommendations for the development, conservation, and use of the water resource to best serve the needs of the people of Indiana for beneficial uses.

- (d) The commission shall prepare a compilation and mapping of all community public water supplies in Indiana that serve at least five hundred (500) customers. The commission shall update the compilation and mapping at least one (1) time every five (5) years. The commission may use funds from the water resources development fund established by IC 14-25-2-4 to prepare compilations and mappings under this subsection. The compilations and mappings prepared under this subsection must include the following information:
  - (1) The location of water sources for community public water supplies.
- (2) The location of treatment facilities used to treat raw water before the water is distributed to community public water supply customers.
  - (3) The extent of water mains in territories served by community public water supplies.
  - (4) The population served by community public water supplies.
- (5) The total amount of water produced by community public water supplies for the most recent calendar year.

As added by P.L.1-1995, SEC.18. Amended by P.L.184-1995, SEC.2.

#### IC 14-25-7-14

## Minimum flows of streams; minimum levels of ground water

- Sec. 14. (a) Subject to subsection (c), the commission may determine and establish the minimum flows of streams, taking into account the varying low flow characteristics of the streams of Indiana and the importance of instream and withdrawal uses, including established water quality standards and public water supply needs.
  - (b) The established minimum flows of streams:
    - (1) are those naturally occurring, as determined by the commission; and
    - (2) may be calculated to reflect seasonal and regional variations.
- (c) For boundary water, the commission may develop mutually agreeable minimum flows of streams in cooperation with the boundary state.
- (d) The commission may determine and establish the minimum level of ground water in aquifers below which further withdrawals would be significantly harmful to the water resource of the area. *As added by P.L.1-1995, SEC.18*.

#### IC 14-25-7-15

#### Significant water withdrawal facilities; registration; report to the commissioner; waiver

Sec. 15. (a) As used in this section, "significant water withdrawal

facility" means 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. Subject to subsection (b), the

term does not include:

- (1) water withdrawal facilities that function as part of the operation or construction of a landfill; or
- (2) water withdrawal facilities located in or on an off-stream impoundment that is principally supplied by a significant water withdrawal facility.
- (b) A water withdrawal facility referred to in subsection (a)(1) or (a)(2) located in the basin (as defined in section 1.2 of IC 14-25-15-1) is subject to the registration requirement of section 4.1.3 of IC 14-25-15-1.
- (c) Every person who has a significant water withdrawal facility shall register the facility with the commission on forms provided by the commission that contain the following:
  - (1) The name and legal address of the registrant.
  - (2) The source of water supply.
  - (3) The total capability of the water withdrawal facility.
  - (4) The total withdrawal capability per day and the amount from each source.
  - (5) The use to be made of the water, the place of use, and the place of discharge.
  - (6) The geographic location of the supply source.
  - (7) The date of registration.
  - (8) Other information specified by rule.
- (d) A significant water withdrawal facility must be registered within three (3) months after the facility is completed.
- (e) The owner of a registered significant water withdrawal facility shall, within three (3) months after the end of each year, make a verified report to the commission on forms to be provided by the commission of the amounts of water withdrawn during the year.
- (f) Under rules adopted by the commission, the department may waive the requirement of the information set forth in subsections (c) and (e) with respect to a temporary significant water withdrawal facility. *As added by P.L.1-1995, SEC.18. Amended by P.L.123-1996, SEC.17; P.L.4-2008, SEC.4.*

#### IC 14-25-7-16

## **Duties of natural resources study committee**

- Sec. 16. The natural resources study committee created by IC 2-5-5-1 shall do the following:
- (1) Oversee the water resource management program of this chapter and the needs of the people of Indiana.
- (2) Report the findings and recommendations in an electronic format under IC 5-14-6 to the general assembly through the legislative council.

As added by P.L.1-1995, SEC.18. Amended by P.L.28-2004,

SEC.131.

#### IC 14-25-7-17

#### **Violations**

Sec. 17. A person who violates section 15 of this chapter commits a Class B infraction. A separate infraction is committed each day a violation occurs.

As added by P.L.1-1995, SEC.18.

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#### Natural Resources Commission Information Bulletin #40

# Methods of Measuring the Amount of Water Withdrawn by a Significant Water Withdrawal Facility

**SUBJECT:** The purpose of this Information Bulletin is to describe methodologies approved by the natural resources commission to calculate the amount of water withdrawn annually from a "significant water withdrawal facility" as defined at IC 14-8-2-257.

#### **Rate of Flow Metering Devices**

Rate of flow meters are used to quantify fluids that pass in a continuous stream rather than in isolated or separately counted quantities. These meters are dependant upon some property of the fluid other than, or in addition to, volume or mass. They are designed to use a change in the property or properties associated with the rate of flow, and they usually include a device that manually or automatically records a measurable change. The rate of flow multiplied by the time of operation equals the amount of water withdrawn for that period of time, so the time of operation must also be tabulated. There are several principles that can be used in recording the rate of flow:

- a. *Differential (Variable) Pressure Type Meters* These systems involve the pressure differential at two points in full flowing systems. When flow varies, the pressure difference measured by such devices also varies and both functions can be correlated with reasonable accuracies through various types of accessory instrumentation. *Examples include venturi meters, flow nozzles, orifice meters, pilot tubes, and annubars.*
- b. Steady Pressure (i.e., Steady Head) Type Meters These systems discharge into the atmosphere. Examples include irrigation nozzles that are available with reasonably accurate flow vs. pressure calibrations.
- c. Overflow (Head Area) Type Meters These systems measure variation in levels of gravity flow (i.e., non-pumped) systems. As flow varies in a channel, the depth upstream of a restriction in partially filled conduits varies and these functions can be correlated with reasonable accuracies. The key element needed in this type of system is water depth that can be measured with accessory instrumentation or simply with a depth gage. Examples of such restrictions are weirs and flumes.
- d. *Current Type Meters* These systems utilize a wheel or propeller, which rotates when immersed in flowing water, and a device to determine the number of revolutions of the wheel or propeller. The number of revolutions is then related to fluid velocity. The method can be utilized where water withdrawals travel through a pipe or an open channel.

#### **Time of Pump Operation**

Water withdrawals can be measured based upon the time each pump supplying a water withdrawal facility is operated multiplied by the capability of the respective pump. The time of operation can be recorded manually in a written log or by means of an automatic time meter. The cost of installing a time meter on a pump is relatively low, and being aware of the pump design discharge, pump efficiency, and time of pump operation allow for a fairly accurate record of water withdrawals. Pumping rates can also be determined for specified periods of time from a manufacturer's calibration graph by correlating volume flows with electrical loads and with discharge pressures.

#### **Past Performance Comparison**

Some industries have a direct relationship between the amount of water withdrawn and the quantity of product manufactured or handled. In order to measure water withdrawals using a past performance comparison, the owner of a significant water withdrawal facility must provide the division of water with adequate supporting data to establish the relationship between water withdrawals and the amount of production.

#### **NPDES Data**

Many businesses and industries monitor the amount of water that is discharged to the State's rivers or streams as a part of their NPDES permit. When water use is non-consumptive and no additional inflow occurs, the amount of discharge water closely reflects the amount of water withdrawn. Ascertaining individual water withdrawals for facilities having more than one well or intake can be difficult, but this method may be acceptable in some cases. In order to measure water withdrawals using NPDES data, the owner of a significant water withdrawal facility must provide the division of water with supporting data to verify that the discharge is reflective of the amount of water withdrawal.

## **Direct Measurement of Amount Applied**

A system using "rain gage" type of equipment can be installed to measure the amount of water applied to a given area (typically in agricultural applications). The water applied multiplied by the number of acres irrigated equals the amount of water withdrawn (e.g. 1 acre-inch equals 27,154 gallons). The gaging system must be carefully monitored in order to differentiate between water applied by irrigation and that contributed by precipitation. In order to measure water withdrawals using direct measurement, the owner of a significant water withdrawal facility must obtain prior approval from the division of water.

#### **Quantity Metering Devices**

Quantity metering devices function by having water pass in successive and completely isolated amounts, measured either by weight or volume, by alternatively filling or emptying containers of known or fixed quantities. The simplest of these devices is a holding tank or a reservoir with a known volume. When the tank or reservoir is filled from a significant water withdrawal system, the water must be accounted for by a logging method that applies to either partially filled or full flowing systems. Examples of weighing meters include weighing tanks and tilting traps. Volumetric meters include holding tanks and reservoirs, reciprocating piston, rotary piston, and nutating disk.

#### **Other Methods**

In order to use a method other than those approved in this Information Bulletin to measure the amount of water withdrawn by a significant water withdrawal facility, the owner of the facility must provide the division of water with the following:

- 1. An explanation or description of the proposed method; and
- 2. Supporting data sufficient to satisfy the division of water that the method provides for an accurate representation of the amount of water withdrawn.

#### STATE OF INDIANA

#### DEPARTMENT OF NATURAL RESOURCES

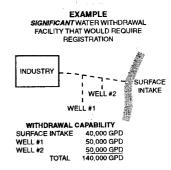
# INSTRUCTIONS FOR THE REGISTRATION OF A SIGNIFICANT WATER WITHDRAWAL FACILITY

#### GENERAL INSTRUCTIONS

#### WHO MUST REGISTER

Indiana Code 14-25-7-15 (Water Resource Management Act) requires every person who has a significant water withdrawal facility to register that facility with the Natural Resources Commission. A water withdrawal facility can be considered to include any and all wells, surface water intakes, pumping apparatus or other installations which supply water to a common collection and/or distribution point. As defined by the statute a significant water withdrawal facility means 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; however, this does not include water withdrawal facilities located in or on an off stream impoundment that is principally supplied by a significant water withdrawal facility, or those associated with operation or construction of a landfill.

Example: An industry obtains water from a surface intake and wells numbered 1 & 2. The surface water intake is capable of withdrawing 40,000 gallons per day (GPD). Well #1 and Well #2 each have a withdrawal capacity of 50,000 gallons per day. Total withdrawal capability of all water withdrawal facilities of this industry is 140,000 gallons per day (GPD). These water withdrawal facilities constitute one significant water withdrawal facility and as such must be registered.



The owner of any wells, surface water intakes or pumping apparatus which are capable of withdrawing more than 100,000 gallons of water a day, either individually or in combination, must register those facilities with the Commission.

#### PROBLEMS OR QUESTIONS

If there are any questions concerning what constitutes a significant water withdrawal facility or how to properly complete the registration form, please call or write:

Indiana Department of Natural Resources
Division of Water
402 West Washington Street Rm. W264
Indianapolis, Indiana 46204
Telephone: (317) 232-4160

#### WHEN TO REGISTER

All significant water withdrawal facilities must be registered within three (3) months after the facility is completed

#### LOCATION INFORMATION FOR SIGNIFICANT WATER WITHDRAWAL FACILITY

The registration form requires the description of the location of several component parts of a significant water withdrawal facility. The information concerning the location of source(s) of supply, water use and discharge points should be carefully completed and may involve referring to a plat book or tax record information for detailed Township, Range, and Section description. If the site is located within a land grant, military donation, or other land survey system not identifiable by Section, Township and Range, a copy of the deed and/or plat map should be submitted with the registration form. In addition, written descriptions, site maps, and/or a facility location sketch should be such as to permit identification of the exact sites. Space has been provided on the last page of the registration form for one or more location maps. Topographic maps, plat maps, city and county maps or other maps may be submitted in order to detail the location of the source(s) of supply, water use and discharge points. Written descriptions of facility locations should include names and numbers of roads, distances, and directions from the nearest town or prominent landmarks.

## INSTRUCTIONS FOR COMPLETING SECTIONS 1 THROUGH 7 OF REGISTRATION FORM

#### Section 1 - Owner of Water Withdrawal Facility

Provide the name of the owner of the property on which the significant water withdrawal facility is located. This would be the name of the owner of the facility where the withdrawn water is collected for use and/or distribution. This does not mean the owner of pumping equipment which is rented. If there is an employee or representative of the owner who should be contacted regarding information provided on the registration form, his or her name and mailing address should be provided in the spaces provided for a contact person.

#### Section 2 - Water Use

Check every purpose for which the water withdrawn by the significant water withdrawal facility is used. If your water use is not included in this list, please check "Other", and list the purpose(s) for which water is withdrawn. For each purpose checked, indicate whether the source of that water is ground water (GW), surface water (SW) or both. Also, if used for Public Water Supply/Drinking Water, indicate the PWSID No. of the facility in the appropriate block.

#### Section 3 - Water Withdrawal Facility Capability

Indicate the total amount of water that can be withdrawn by all wells and surface water intakes which make up the significant water withdrawal facility. This would be equal to the sum of the pump capacities of all wells plus the sum of the intake capacities and/or pump capacities of all surface water intakes. Indicate the withdrawal capability in gallons per day (GPD) or million gallons per day (MGD).

#### Section 4 - Supply Sources

#### I. Ground Water Sources

Indicate the total number of wells included in the significant water withdrawal facility. Also provide the total amount of water that the pumps on all wells of the facility are capable of withdrawing in gallons per minute (GPM).

#### Sections 4-A thru D

- Line 1. Indicate the reference number that has been assigned by the owner to designate each well. If no numbering system exists, number the wells 1, 2, 3, etc., as necessary. Also indicate the pump capacity of each well in gallons per minute (GPM)
- Line 2. Provide the well depth and well diameter for each water well. This information may be available from your well drilling contractor or may be on file with the Ground Water Section of the Division of Water. See page one of these instructions for the address of the Division of Water.
- Line 3. If known, check the aquifer from which water is withdrawn by each well. An aquifer is an underground geologic formation that has the ability to receive, store, and transmit water in amounts sufficient for some beneficial use.
- Lines 4 & 5. Provide the location of the well including: County (ex: Marion), Civil Township (ex: Washington), Township (ex: T. 15 N.), Range (ex: R. 3 E.), Section (ex: Section 34). If the site is located on property described by another land survey system, please attach a copy of a deed or plat map.
- Line 6. Indicate the city or town located nearest the well.
- Line 7. A written description of the location of each well should he provided. This description should include the names and numbers of nearby roads, and distances and directions from prominent buildings or landmarks. Space is available on the last page of the registration form for a location sketch. Separate maps or plats on which the location of the well(s) has (have) been marked may be attached to the registration form if desired.
- Line 8. For office use only, do not fill in.

#### II. Surface Water Sources

Indicate the total number of intakes supplied by surface water sources for use as a part of the significant water withdrawal facility. Also, provide the total amount of water that can be withdrawn from surface water sources by all pumps and intake structures of the facility in gallons per minute (GPM).

#### Sections 4-A thru D

- Line 1. Indicate the reference number that has been assigned by the owner to each intake structure. If no numbers have been assigned, designate the intakes 1, 2, 3, etc.
- Line 2. Indicate the withdrawal capacity of the intake structure or pump in gallons per minute (GPM).
- Line 3a & b Check the appropriate box to indicate from where the water is being withdrawn. If the body of water is named, please indicate that name in the space provided.
- Lines 4 & 5. Provide the location of each intake structure including County (ex: Marion), Civil Township (ex: Washington), Township (ex: T. 15 N.), Range (ex: R. 3 E.), and Section (ex: Section 34). If the intake is located on property described by another land survey system, please attach a copy of a deed or plat map.
- Line 6. Indicate the name of the city or town located nearest the intake structure.
- Line 7. A written description of the location of each intake should he provided. This description should include the names and numbers of nearby roads, and distances and directions from prominent buildings or landmarks. Space is available on the last page of the registration form for a location sketch. Separate maps or plats on which the location of each intake has been marked may be attached to the registration form if desired.
- Line 8. For office use only, do not fill in.

#### Section 5 - Location of Water Use

- Line 1. Indicate whether the water withdrawn is used in the immediate vicinity of the withdrawal points.
- Line 2. If water is transported from the withdrawal site to a place of use, provide the Civil Township, County and State in which the water is utilized.
- Line 3. Indicate the location of the site where the water is used. Please provide the name of the facility where the water is used, the names and number of nearest roads, nearest city or town, direction and distance from prominent landmarks and buildings, etc. A map or sketch indicating the location of water use may be attached if desired.

#### Section 6 - Location of Discharge Point(s)

- Line 1. Indicate whether a portion of the water withdrawn from ground or surface water sources is discharged (returned) to some source. Crop irrigation would not be considered to involve a discharge or return of water to some source. Discharge water is that portion of the water withdrawn which is not consumed during use and is returned to some location after use.
- Line 2. Indicate here the percentage of water withdrawals which are discharged to the same or another source. This percentage would be equal to TOTAL AMOUNT RETURNED

TOTAL AMOUNT WITHDRAWN

- Line 3. Check the appropriate boxes indicating where the discharge waters are placed. If "Other" is checked, please specify where the water is returned.
- Line 4 & 5. Provide the County, Civil Township, Township, Range and Section in which each discharge facility is located. Refer to the instructions for completing Lines 4 and 5 of Section 4-A thru D under Supply Sources.
- Line 6. A written description of the location of each discharge facility should be included. This description should include the same type of information outlined in the instructions for the completion of Line 3 in Section 5 (Location of Water Use).

#### Section 7 - Statement of Affirmation

The registration form should be signed and dated and returned to the Indiana Department of Natural Resources at the address shown on the front page of the registration form.

#### IMPORTANT: PLEASE NOTE

ADDITIONAL REGISTRATION FORMS ARE AVAILABLE UPON REQUEST IF THE REGISTRANT HAS MORE THAN ONE SIGNIFICANT WATER WITHDRAWAL FACILITY. IN THE EVENT THAT CHANGES OR ADDITIONS ARE MADE TO A SIGNIFICANT WATER WITHDRAWAL FACILITY AFTER ITS INITIAL REGISTRATION, THE APPROPRIATE INFORMATION TO UPDATE THE PREVIOUSLY SUBMITTED DATA FOR THAT FACILITY SHOULD BE SUBMITTED TO THE DIVISION OF WATER.



# DETAILED DIRECTIONS ARE PROVIDED ON THE SEPARATE ENCLOSED INSTRUCTION SHEET.

	FOR OFFICE USE ONLY
Registration r	lumber
SEND TO:	INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF WATER 402 WEST WASHINGTON ST., ROOM W264 INDIANAPOLIS, IN 46204 TELEPHONE: (317) 232-4160

AUTHORITY: IC 14-25-7-15 requires that every person who has a significant water withdrawal facility shall register it with the Natural Resources Commission. A "significant water withdrawal facility" means 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; however, this does not include water withdrawal facilities located in or on an off-stream impoundment that is principally supplied by a significant water withdrawal facility or those associated with operation or construction of a landfill.

withdrawal facility, or those associated with operation or construction of a landfill. MGD = Million Gallons Per Day GPM = Gallons Per Minute GPD = Gallons Per Day NOTE: 1. OWNER OF WATER WITHDRAWAL FACILITY (please type or print) Contact person (if other than owner) Telephone number Telephone number Name of owner Address (number and street) Address (number and street) Address (number and street) Address (number and street) Address (city, state, ZIP code) Address (city, state, ZIP code) 2. WATER USE Water to be used for the following purposes. (Check one or more as appropriate) GW = Ground Water / SW = Surface Water Supply source / circle SW Heating / Air Conditioning GW SW SW Cooling Water GW ☐ Public Water Supply GW SW Recreational Use GW GW SW GW SW **Process Water Drinking Water / Sanitary Facilities** Other (specify) \_\_\_ GW GW SW Coal Preparation GW SW Agricultural Irrigation SW SW GW **GW** Oil Recovery **Golf Course Irrigation** SW GW SW Mineral Extraction **GW** Waste Assimilation SW GW SW **Power Generation** GW Livestock Watering PWSID number (If used for Public Water Supply / Drinking Water) 3. WATER WITHDRAWAL FACILITY CAPABILITY GPD or MGD (circle one) Total withdrawal capability of withdrawal facilities: NOTE: This total is the sum of the capabilities of all wells and surface water intakes. 4. SUPPLY SOURCES **GROUND WATER SOURCES** SURFACE WATER SOURCES Total withdrawal capability of all surface water intakes Total number of intakes Total withdrawal capability of all wells Total number of wells **GPM** FOR EACH SURFACE WATER INTAKE PROVIDE THE FOLLOWING: FOR EACH WELL PROVIDE THE FOLLOWING: (Additional entries are provided on page 2.) (Additional entries are provided on page 2.) A. Owner's well number Pump capacity (GPM) A. Owner's intake number Intake capacity (GPM) Well diameter (inches) Well depth (feet) Source utilized (check one) Aquifer utilized (check one) ☐ River or stream ☐ Lake ☐ Reservoir ☐ Limestone Sand and gravel ☐ Drainage ditch ☐ Pond ☐ Other (specify) Shale ☐ Sand Other (specify) □ Sandstone Name of body of water Civil township County Civil township County LOCATION OF INTAKE: LOCATION OF WELL: Range Section Township Range Section Township E or W (circle one) R N or S (circle one) E or W (circle one) R N or S (circle one) Nearest city or town Nearest city or town Describe location of intake (attach map or plat if possible) Describe location of well (attach map or plat if possible) IITM F UTM.N UTM.E UTM.N Space is provided on the back of this form for a location sketch. Attach additional location sketches or maps as necessary.

			4. SUPPLY SOUR	CES (CONTINUED)					
GROUND WA				SURFACE WATER SOURCES					
B. Owner's well number		Pump capacity (GI	PM)	B. Owner's intake number					
			L \$	Intelle conseils (CDM)					
Well depth (feet)		Well diameter (inc	hes)	Intake capacity (GPM)					
Aquifer utilized (check one)		·		Source utilized (check one)					
☐ Sand and gravel		Limestone		☐ River or stream ☐	take   Reservoir				
				t in the second	Pond Dother (specify)				
Sand		☐ Shale		<u> </u>	Pond				
☐ Sandstone		Other (speci	fy)	Name of body of water					
LOCATION OF WELL:	County		Civil township	LOCATION OF INTAKE:	Соипту	Civil township			
Township	Range		Section	Township	Range	Section			
TN or S (circle one)	RE	or W (circle one)		TN or S (circle one)	R E or W (circle one)				
Nearest city or town				Nearest city or town					
Describe location of well (attack	ch map or plat it	f possible)		Describe location of intake (at	tach map or plat if possible)				
,				,					
UTM,N	UTM.E			UTM.N	UTM.E				
C. Owner's well number	0.112	Pump capacity (GI	PM)	C. Owner's intake number					
		i ampagay (o	,						
Well depth (feet)		Well diameter (inc	hes)	Intake capacity (GPM)					
			· · · · · · · · · · · · · · · · · · ·						
Aquifer utilized (check one)				Source utilized (check one)					
☐ Sand and gravel		☐ Limestone		☐ River or stream ☐	Lake  Reservoir				
☐ Sand		☐ Shale	÷:-	☐ Drainage ditch ☐ Pond ☐ Other (specify)					
Sandstone		Other (speci	64						
Candstone		Citier (speci	·y)	Name of body of water					
LOCATION OF WELL:	County		Civil township	LOCATION OF INTAKE:	County	Civil township			
Township	Range		Section	Township	Range	Section			
TN or S (circle one)	RE	or W (circle one)		TN or S (circle one)	R E or W (circle one)				
Nearest city or town				Nearest city or town					
Describe location of well (attack	ch map or plat it	f possible)		Describe location of intake (att	tach map or plat if possible)				
UTM.N	UTM.E	<del> </del>		UTM.N UTM.E					
D. Owner's well number	O I WI.E	Pump capacity (GPM)		D. Owner's intake number					
D. Owner o wen names		rump capacity (G	- WI)	D. Owner's milare mumber					
Weli depth (feet)		Well diameter (inches)		Intake capacity (GPM)					
	:								
Aquifer utilized (check one)				Source utilized (check one)					
☐ Sand and gravel		Limestone		☐ River or stream ☐ Lake ☐ Reservoir					
☐ Sand		☐ Shale							
			• >	☐ Drainage ditch ☐	Pond U Other (specify)				
☐ Sandstone		☐ Other (speci	(y)	Name of body of water					
	County		Civil township		County	Civil township			
LOCATION OF WELL:				LOCATION OF INTAKE:	,				
Township	Range		Section	Township Range		Section			
TN or S (circle one)	1			FN or S (circle one) RE or W (circle one)					
Nearest city or town	L	(0.000 0110)	1	Nearest city or town		L			
				Toursel only or town					
Describe location of wall (-4-	oh man ar elat i	f nassible)		Describe leasting of inteller (office) was a select for a site of					
Describe location of well (attack	on map or plat fi	μυσοινία		Describe location of intake (attach map or plat if possible)					
UTM.N	UTM.E		·	UTM.N UTM.E					
If owner has more than 4		h senarate sheet	s providing above						
information for each add	itional well.	ii schaiais 21166	e broaiding above	information for each add		era hioaunii anoae			

5. LOCATION OF WATER USE									
Is the location of water use the same a			Yes		No				
If "No", please complete:	State	County				Civil township			
If "No", please complete:  Describe location of water use (attach map or	r plat if possible)								
Is a portion of the water withdrawn retr	urned to some source through a	discharge facility?	Yes		No				
If "Yes" is checked, please complete the Estimated percentage of water withdrawn w	uOII /.	9	6						
Water will be discharged to the following (cl  Well Lake Pond Reservoir Other (specify)	heck one or more as appropriate)  □ Drainage Ditch □ River or Stream	☐ Storm Sewer ☐ Sanitary Sewe	r 🗆			on ice Connections			
Location of discharge facility:	State	County				Civil township			
Township	Range	Range							
TN or S (circle one)	R E or W (circle	one)	1						
Describe location of discharge facility (attach	map a place passing)								
If more than one point of discharge, p	elease attach separate sheets pro	oviding the above info	rmation for e	each discha	arge p	ooint.			
		APPLIE OF A SCIENCE	30N						
I hereby swear or affirm, under the pe	7. STATE enalties for perjury, that the inform	MENT OF AFFIRMAT mation submitted here	with is to the	e best of m	y kno	wledge and belief, true, accerate			
and complete.  Signature of owner or authorized representation	tive				1-URB	Date (month, day, year)			

WATER WITHDRAWAL FACILITY LOCATION SKETCH (Locate facility with reference to water supply, numbered roads, highways, buildings, or distinctive landmarks.) This section may be divided for additional maps or separate maps or plats may be attached.

SIC.1 SIC.2 SIC.3	FOR OFFICE USE ONLY Date received
ship	County
HUC	Basin
Aquifer	sin
Topographic map	Registration no.

# STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES DIVISION OF WATER WATER WITHDRAWAL REGISTRATION AND REPORTING SYSTEM

Regno: 23-00001-PS Basin: Middle Wabash

County: Fountain

Township: 19N

Topographic Map: Veedersburg Range: 7W Standard Industrial Classification (SIC): 4941 Section: 6

Water Use Purpose(s):

Public Water Supply-GW

Sources(s):

Ground Water

Drinking Water/Sanitary Facilities-GW

Ground Water

Ground Water

Facility Information:

Total Capability: 2.563 MGD Number of Wells: 4 Withdrawal Capability: 1780 GPM Number of Intakes: None Withdrawal Capability: None

**Ground Water Source Information:** 

Number	Capacity, GPM	Depth, FT	Diameter, IN	Aquifer Utilized
1	600	36	16	SG
2	280	43	10	SG
3	300	43	10	SG
4	600	46	16	SG

Surface Water Source Information:

No Surface Water Sources

NOTE: If a well or intake has been added to your facility, please include the following information in addition to the water use amounts.

WELL

INTAKE

1) Capacity

1) Capacity

2) Depth

2) Source Name

3) Diameter

3) Location

- 4) Aquifer Utilized
- 5) Location

(Include a map for the locations)

FORM # : 21915R  Please complete items (1) through (7)  Facility Registration Number : 23-00001-PS						402 WEST WASHINGTON ST., ROOM W264 INDIANAPOLIS, INDIANA 46204 TELEPHONE (317) 232-4160 Water Withdrawal Report for Year Ending December 31,2009																					
																		O\	WNER OF	WATER WI	THDRAWA	AL FACILIT	Υ				
														City of Vee	dersburg					Contact: Paul L Keeling							
100 South	South Main Street						City of Veedersburg 100 South Main Street																				
Veedersbu	ıra IN 4798'	7						ersburg IN																			
Phone no.:	-					Phone i	no.: (765)	•																			
					WATI	ER WITHDR	, ,																				
(1) Units U	Ised in Rep	orting Amo	ounts Withdr	awn (Ched	ck One) :	Thousand G	allons	N	lillion Gallo	าร																	
(2) Monthly	y Report for	r Ground W	Vater Source	es																							
WELL#	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL														
1 2			· ——						_				-														
3																											
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TOTAL																											
(3) Monthly INTAKE#	Report for S JAN	Surface Wate FEB	er Sources MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	TOTAL														
IIN I ANE#	JAN	FED	IVIAR	AFK	IVIAT	JUN	JUL	AUG	SEF	001	NOV	DEC	TOTAL														
						_			_				_														
TOTAL						_			_	_	-		_														
METHOD OF MEASUREMENT					STATEMENT OF AFFIRMATION																						
(4) Are withdrawal amounts based on flow meter					(6) Is your registration information still correct?																						
readings? Check one ==> Yes No If 'No', please check and complete one of the lines:					Check one ==> Yes No If 'No', please correct where appropriate.																						
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NPDES data: Consumptive use % Other					Owner or Agent																						
					<del></del>	Printed N	Namo																				
	TOTAL Y	EARLY O	PERATION	TIME		FIIIILEU I	Naiiie																				
(5) Complete ONLY one:  No. of Hours -OR- No. of Days					Signature Date																						

INDIANA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER

ANNUAL WATER USE REPORT FORM FOR A

SIGNIFCANT WATER WITHDRAWAL FACILITY