

DRAFT COPY FOR WATER SHORTAGE TASK FORCE DISCUSSION (1/13/09)

VIII. Water Use Priorities

A. Introduction

Water shortage can be defined as a situation in which the demands of competing users exceed the available supply. During a shortage, water would generally be allocated among competing users in one or more of the following ways:

1. First come, first served (in the absence of an allocation policy)
2. Administrative rule (as determined and enforced by public policy)
3. An established system of water rights (established in public law)
4. Water allocations (defined for categories of water users)
5. Water pricing (perhaps in combination with water allocations)
6. Water sales or water marketing (in combination with water rights or water allocations)

During times of water shortage, the need to reduce demand on the resource will exist. Decisions regarding the uses which are deemed to have the highest priority will not be easy or clear cut. Indiana Code 14-25-1-3 provides that: “the owner of land contiguous to or encompassing a public water course shall at all times have the right to the use of water there from in the quantity necessary to satisfy his needs for domestic purposes, which shall include, but not be limited to, water for household drinking purposes and drinking water for livestock, poultry and domestic animals. The use of water for domestic purposes shall have priority and be superior to any and all water uses.”

The priorities of other uses must be determined on some reasonable standard. Guidance in these decisions may be found in policy statements made in both Indiana Code 14-25-1-1 and 14-25-3-3 which state: “(a) that the general welfare of the people of the State of Indiana requires that the surface water resources of the state be put to beneficial uses to the fullest extent and that the use of water for non beneficial uses be prevented...”; and (b) “It is a public policy of this state in the interest of the economy, health, welfare of the state and the citizens of Indiana, to conserve and protect the ground water resources of the state...” [In addition, Rule 312 IAC 6.3-4-1 establishes the following water allocation priorities for withdrawals from State financed reservoirs under the provisions of IC 14-25-2:](#)

- A) [First Priority is for the use of water for domestic purposes as described in IC 14-25-1-3.](#)
- B) [Second priority is for the use of health and safety.](#)

- C) Third priority is for power production that meets the contingency planning provisions of the drought alerts described in 312 IAC 6.3-5-2.
- D) Fourth priority is for industry and agriculture (not described in A, B, or C) that meets the contingency planning provisions of the drought alerts described in 312 IAC 6.3-5-2.
- E) Fifth priority is for a purposed described in clause (C) or (D) that does not meet the contingency planning provisions of the drought alerts described in 312 IAC 6.3-5-2.
- F) Sixth priority is for any other purpose.

It should be noted that these are all [water withdrawal categories](#) and do not include in stream uses. Certain in stream uses will have little or no priority in the event of serious drought but may bring the loudest public outcry. Included in these uses would be swimming, recreational boating, and aesthetic appearances. Other in stream uses such as minimum [stream flow](#) to prevent water quality degradation or wetlands preservation must be recognized and addressed as a priority use.

In establishing priorities, emphasis must be given to high capacity water uses, [withdrawals by Significant Water Withdrawal Facilities \(SWWF\)](#), since these users have the largest impact on water resources.

The following seven (7) Categories have been established for [registration of Significant Water Withdrawal Facilities in Indiana under the provisions of IC 14-25-7-15](#):

- (1) Domestic Supply
- (2) Public Supply
- (3) Energy Production
- (4) Irrigation
- (5) Industrial
- (6) Rural
- (7) Miscellaneous

In managing a reduced resource in times of water shortage it is important to recognize that portions of the water utilized in each of the above segments is necessary while others are not. For example:

- 1. Drinking water for customers, health care facilities, and fire fighting is high priority while water for lawn watering and car washing is not.
- 2. Cooling water for electrical generating stations is necessary for the production of electricity; however, in times of water shortage the

continuous running of air
necessary for all users.

conditioners raises demand but may not be

3. Irrigation uses involve both crop production and golf course watering.
Crop production would seem to be more important than keeping green
grass on a golf course.

B. Recommendations:

It is recommended that the “water allocation priorities” established in Rule 312 IAC 6.3-4-1 be implemented during a water shortage. In addition, the following recommendations are made relative to establishing other water use priorities in times of water shortage:

1. Consideration should be given to both in stream and withdrawal uses, and whether the source is from surface water or ground water.
2. All management decisions should attempt to preserve minimum ~~stream flows~~ stream flow in accordance with the discussion in the section which follows.
3. Priorities should be assessed in each Water Shortage Identification Region based upon existing uses. Regional advisory boards consisting of at least a Representative of each water use may be created once a Water Shortage Warning is in effect.
4. Non-Essential uses should be given lowest priority.
5. Water use restrictions should be evaluated in light of the use.
6. Water users promoting or demonstrating efficiency and/or conservation ~~in use, or that comply with contingency planning provisions,~~ should be given higher priority than those users not demonstrating such capability.
7. Existing users shall be given priority over new users within each of the six water allocation priorities specified in Rule 312 IAC 6.3-4-1.
8. Distinctions should be made between consumptive and non-consumptive uses.
9. In accordance with IC 14-25-4-12, the ground-water resource of an area shall be protected against high capacity withdrawals that exceed the recharge capability of the resource.

The State of Indiana can determine how these 6 methods will be used to allocate water during shortages. In the absence of water policy development, most water will be allocated according to the first come, first served rationale. If the State wishes to assign priorities regarding water use during shortages, it will develop administrative rules expressing those priorities. Alternatively, the State might engage in a long-term process of developing a system of lawful water rights that define how water will be allocated during times of plenty and during shortages. In the medium term, the State might choose to develop a system of water allocations that places limits on withdrawals by users within selected categories. For example, the State might impose restrictions on withdrawals from Surface Water Withdrawal Facilities, limit groundwater withdrawals, or require minimum instream flows to protect natural habitats. Upgrades of existing measurement and reporting capabilities might be required to support such a system of water allocations.

The State might also consider economic incentives to assist in allocating water during shortages. Water prices influence water use in all sectors, and water pricing structures can be designed to encourage conservation, particularly during shortages. Conservation can be encouraged also by promoting water sales (water marketing), in conjunction with a system of water rights or water allocations. Improvements in water delivery and measuring capability will be needed in some areas to support innovative water pricing and water marketing programs.

It is likely that several of the six methods of water allocation will be observed in Indiana during water shortages in the next 5 to 10 years. Over time, the State can select the allocation methods that appear to generate the greatest public welfare, and design policies to implement or promote those methods. There is a large body of literature and substantial empirical evidence describing the advantages and challenges of alternative water allocation methods and policies.

The following information, based largely on the Indiana Code, might be helpful in forming preliminary ideas regarding how the State should proceed in developing comprehensive, long-term policies for allocating water during shortages. Some of the information pertains to the notion of water use priorities, given the inclination to declare priorities for allocating scarce resources. However, the assignment of water use priorities should be viewed as one policy option within the method of allocating water by administrative rule.

C. GUIDANCE

1. Domestic Water Use
2. Other Beneficial Uses

Guidance [for other water use priorities implemented during a water shortage](#) can also be found in policy statements made in both Indiana Code 14-25-1-1 and 14-25-3-3 which state: **“(a) that the general welfare of the people of the State of Indiana requires that the surface water resources of the state be put to beneficial uses to the fullest extent**

and that the use of water for non beneficial uses be prevented...”; and (b) “It is a public policy of this state in the interest of the economy, health, welfare of the state and the citizens of Indiana, to conserve and protect the ground water resources of the state...”

3. Water Sales From [State Financed Reservoirs](#)

4. Significant Water Withdrawal Facilities: In accordance with [IC 14-25-7-15](#), all significant water withdrawal facilities (SWWF) must register with the Department of Natural Resources and report water use annually. A SWWF is defined in the statute as “the water withdrawal facilities of a person that, in the aggregate for 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. The following six (5) water use categories have been established for registered SWWFs in the State:

- (1) Public Supply
- (2) Energy Production
- (3) Irrigation
- (4) Industrial
- (5) Rural

When establishing water use priorities, consideration must be given to register SWWFs due to their potential impacts on the State’s water resources.

5. Instream Uses

The SWWF [water withdrawal categories](#) do not include instream uses. The optimal allocation of instream flows during water shortages requires consideration of both private and public benefits. Some in stream uses [such as swimming, recreational boating and aesthetic appearances](#) might be assigned little or no priority during [water shortages](#). A higher priority might be assigned to maintaining minimum [stream flow](#) to prevent water quality degradation or preserve wetlands.

6. Emergency Regulation of Ground Water Rights

Some priority of use has been established for small capacity water wells (typically domestic wells) by [Indiana Code 14-25-4](#) which provides protection for a small capacity well owner against the impacts of pumping by a significant ground water withdrawal facility if it substantially lowers ground water levels, resulting in the failure of a domestic well to provide its normal supply of water. In addition, Section 12 of the statute allows for the restriction of pumping by a SWWF if “there is reasonable belief that continued ground water withdrawals from the facility will exceed the recharge capability of the ground water resource of the a”.