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, water use may need to be locally or regionally reduced. Reduction in withdrawals can be achieved through voluntary water management that guide reductions in water withdrawals, and by local or regional policies that reflect public preferences regarding water use priorities. 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 using some reasonable standard. Guidance in these decisions is found in policy statements made in 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, Indiana Code 14-25-2-1 specifies that **"the commission may provide certain minimum quantities of stream flow or sell water on a unit pricing basis for water supply purposes from the water supply storage in reservoir impoundments or parts of the impoundments that are financed by the state".** Rule 312 IAC 6.3-4-1 establishes the following water allocation priorities for withdrawals from State financed reservoirs:

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. The management of instream flows during water shortages requires consideration of both private and public benefits. Some instream 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 streamflow to prevent water quality degradation or preserve natural habitat.

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The initial population of regulated users during a water shortage would be defined by already registered withdrawals by high capacity water users defined as Significant Water Withdrawal Facilities (SWWF). In any area, these users are most likely to have the largest impact on water resources. In accordance with IC 14-25-7-15, all SWWFs should be registered with the Department of Natural Resources and report monthly 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 (6) categories have been established for registration of SWWFs in Indiana under the provisions of IC 14-25-7-15:

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

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 SWWFs if they substantially lower 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 SWWFs 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 area".

B. Recommendations:

The Water Shortage Task Force recommends 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. All water use priorities should reflect the need of the region that is experiencing the shortage. Ongoing regional water supply planning is the most coherent approach to managing water supplies during a shortage.

2. Consideration shall be given to both instream and withdrawal uses, and whether the source is from surface water or ground water.

3. All management decisions shall attempt to preserve minimum streamflow in accordance with the discussion in the section which follows.

4. Priorities shall be assessed in each Water Shortage Identification Region based upon existing uses. Regional advisory boards consisting of at least one representative of each water use category should be created for each Water Shortage Identification Region.

5. Non-Essential uses shall be given lowest priority.

6. Water users promoting or demonstrating efficiency and/or conservation, or that comply with contingency planning provisions, shall be given higher priority than those users not demonstrating such capability.

7. Existing users shall be given priority within each of the six water allocation priorities specified in Rule 312 IAC 6.3-4-1.

8. Distinctions shall 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 the recommended water allocation priorities will be used to make decisions among competing water users during shortages. In the absence of water policy development, most water may be allocated according to the first come, first served rationale. If the State wishes to assign priorities regarding water use during shortages, it needs to develop administrative rules expressing those priorities. Alternatively, the State should develop a system of water rights that define how water will be managed during times of high flows and during shortages. In the medium term, the State or affected regional planning authority might choose to allocate water in a way that places limits on withdrawals by users within selected categories. For example, there might be a system of restrictions on withdrawals from Surface Water Withdrawal Facilities, limit or space groundwater withdrawals, or require minimum instream flows to protect natural habitats. Upgrades of existing measurement and reporting capabilities would be required to support such a system of water allocations.

The State should also develop 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 also be encouraged 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 different methods of water allocation will be used to manage supplies and demands in Indiana during water shortages within the next decade. This experience will allow the State to select the allocation methods that appear to generate the greatest public welfare, and design policies to implement or promote those methods.

NOTE: The nine water use priority recommendations provided above require the decision makers (local and regional representatives) to evaluate the various uses of water in the area and make decisions about what is and what is not important to the region. Any of the following could be used to determine that one user is more important than the other. For example, a non-consumptive user (like a very efficient water park) could be favored over consumptive user, like farming or golf course irrigation because one is consumptive use. On the other hand, the water park is clearly non-essential use. There is no clear description of how the various water user category representatives would make these decisions. Recommendation #9 suggests that the drought afflicted area should be evaluated with a flow model that accounts for the variation in recharge to determine the sustainable yield of the aquifer.