

AWWA White Paper

Water Rights and Allocations for Sound Resource Management

Water rights and allocation systems have been established in the United States to achieve two goals: providing life-sustaining water to all citizens and codifying arrangements to maximize efficiency of use.

No national water rights system exists, and state water laws have evolved under differing traditions and conditions. Each state's system of water allocation, which defines type and quantity of use, is based on the state's approach to water rights. Western states follow variations on the prior appropriation doctrine, and eastern states generally apply riparian rules and state permits for use. Some state water laws rely on common law doctrines and court decisions resolving private disputes; in other states, the legislature has established sophisticated statutory and administrative arrangements to define water rights and allocate resources.

Two factors that have emerged in the past 25 years affect state water allocations – federal actions and improved hydrological science. Constitutional, statutory and regulatory constraints have been imposed on water rights and resources management under reserved water rights claims for tribal and federal lands and under such federal laws as the Endangered Species Act and the Clean Water Act. Conflicts between water quality goals and water quantity management have also emerged.

Although some groundwaters are stored in confined aquifers and are not replenished by the normal hydrological cycles of precipitation and percolation, water is generally a renewable resource, and many groundwaters and surface waters are interdependent. When they are interrelated resources, surface water recharge is essential to the replenishment of groundwater supplies, and withdrawals from groundwater may affect stream flows. Only recently has water law begun to recognize this interdependence; some states still do not issue permits for wells.

The two primary concerns in a water allocation system are the ability to provide legal certainty or predictability and security of tenure. Although no water rights scheme can assure sufficient quantities of water under all conditions, water allocation arrangements can grant rights for a sufficient period of time and protect against interference from others. Such security is essential to assure investment in reliable water supplies.

Another important facet of a water rights system is flexibility that recognizes changes in economic efficiency and the value to society of a given use. A water rights system allowing for voluntary transfer between willing buyers and sellers within a market system and containing protections for other affected parties leads to economically efficient use and conservation of available resources. Economic efficiency encourages those uses that produce the greatest value and the most cost-effective methods to serve any given use.

Under both the prior appropriation and riparian doctrines, the concepts of “beneficial use” and “reasonable use” of water recognize the fundamental tenet that water should be used efficiently. In practice, however, some water rights systems encourage inefficient use of water resources. The “use it or lose it” rule in some prior appropriation systems does not encourage efficient water development and utilization. Systems that provide credits for water conservation efforts and allow those credits to be banked or sold encourage conservation rather than penalizing those who conserve.

To foster investment in water resource development and conservation projects, the water rights system needs to confer rights for developed and conserved water and protect those rights against diversion by others. Some common law doctrines, particularly in riparian states, do not provide adequate protection for developed rights. A clear set of state rules for such conserved and developed waters is needed to establish and encourage such important investments.

Effective stewardship of water resources requires an integrated approach to water management that encompasses planning, regulation, conservation, and project development involving governments and users – drinking water utilities, agriculture, industry, recreation and preservation – to balance the demands placed on water resources. Intense management of withdrawals and sophisticated water allocation arrangements are required in areas where water demands approach or exceed available supply.

Sound water planning includes an inventory of available resources, consideration of the relationship between water quantity and water quality management, evaluation and projection of existing and future demands and uses (in-stream uses and withdrawals), assessments of structural and nonstructural alternatives to meet future needs, and evaluation of water resource management alternatives. Environmental values, as well as human needs, are considerations in an integrated resources planning process.

Sound water allocation decisions are tied to planning. Good water allocation systems provide a mechanism for setting aside and protecting potential sources, including reservoir sites, to serve future public water supply needs. Securing investment in such sites for future use requires assurance that the resources may ultimately be used.

Except for irrigation or lawn watering, many uses across the country, including most public water supply uses, are primarily nonconsumptive. The water withdrawn is returned to the hydrologic system and becomes available to others for reuse downstream or in another part of the aquifer. Although much of this recycling occurs naturally, in some areas artificial recharge and other recycling programs are practiced. Such recycling and reuse promote efficient use of water resources.

Water allocation arrangements need to integrate the effect of consumptive uses, including evaporative losses and interbasin transfers. Although consumptive use and water transfers are often justified, the goal in managing consumptive uses is to assure maximum availability and efficient reuse of available water resources.

AWWA Recommendations

1. Water allocation and water rights arrangements should recognize the relationship between groundwater and surface water. Water allocation systems should recognize that water resources need to be managed in the context of hydrologic units.
2. Water allocation and water rights systems should be based on sound, comprehensive water resource planning and integrated resource management involving all users. Recognizing that conflicts over water quality and quantity goals often exist, states need to balance the criteria for use.
3. State governments should act to administer water allocation and water rights arrangements and to reconcile competing uses and needs, considering the state perspective and broad national priorities (interstate water pacts, endangered species, wetlands, water quality, and other issues). Federal guidance should be one of the considerations for reconciling uses, but not the controlling determination.
4. Water allocation and water rights systems should be tailored by each state considering the relative availability or scarcity of the resource.
5. Except in unusual conditions, water allocation and water rights systems should be aimed at managing water as a replenishable resource.
6. Water allocation and water rights systems should define and quantify allowable uses in a clear, logical and predictable fashion.
7. Water allocation and water rights systems should be able to differentiate between management of consumptive and nonconsumptive uses.
8. Water allocation and water rights systems should promote conservation and the efficient use of water.
9. Water allocation and water rights systems should promote economic efficiency.
10. Water allocation and water rights systems should provide sufficient security of water rights to encourage investments in infrastructure and enterprises that rely on the availability of water. Such protection assures a fair return on investments for development and conservation projects (such as reservoirs and artificial recharge projects).
11. Water allocation and water rights systems need the flexibility to allow for changing hydrologic, economic, and environmental conditions.
12. Water allocation and water rights systems need to recognize environmental values and provide for legitimate in-stream water uses, such as fish, wildlife, and wetland preservation.

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