Water Policy

Traditionally, water policy (at least the aspect of water policy that we, as environmental professionals, are typically involved with) emphasized the importance of this natural resource for navigation, commerce, farming and agriculture, consumption, and recreation. More recently, water policy discussions have expanded to encompass the sustainable use of water for both current and future generations. From a broad perspective, water policy incorporates aspects of addressing water as both a natural resource and a commodity, but as competition for readily available water increases, more scrutiny is being placed on water management priorities.

Water as a Resource
One of the oldest and most established perspective of water management as a resource stems from water being essential to virtually all human endeavors and all ecosystems. Water is without a doubt of public importance and government plays an important role in its management and protection. There is not much debate regarding the government’s need to maintain ultimate control over water on the behalf of its citizens and thus has the authority to grant rights to use this water to individuals, and public and private entities. Additionally, regardless of water rights previously granted and resultant uses of this water, the government retains authority to change management rules at any time in response to changing situations (i.e., drought conditions).

Water as a Commodity
From a commodity perspective, arguments are made that assessing a price for water promotes investment in developing reliable water sources and encourages conservation. By placing a value on any product, the positive affect of discouraging...
wasteful use will be realized. Conversely, no value or economic driver to penalize waste will invariably work against conservation and reuse.

A term “full-cost pricing of water” has worked its way into this debate. The recognition of the full cost of accessing and supplying water highlights the value and the economic impact of providing water in sufficient quantity and quality to meet the desired needs.

In some countries, the commercial transfer for water rights is authorized. An individual or entity that owns a water right can transfer that right to another individual or entity for a price.

Significant infrastructure is required to transport and distribute water from the source to the points of use, especially in the increased urbanized areas. A private company, for example, will supply water to a specific group of users (typically in an urbanized area). This private company will finance the construction of the required infrastructure (including water treatment facilities as well as transmission and distribution facilities), and operate and maintain system. The private entity then recoups its initial costs and ongoing expenses by charging customers for the water they use. When the full cost for supplying the water supply is deemed affordable by the customers, then this scenario is judged to be acceptable.

On the other hand, if the supply of water was previously subsidized in some form (i.e., the water usage fees are not sufficient to cover all costs; therefore, other revenue is used to offset the gap in funding) then the water customer may not readily accept, or in some cases, may not be able to afford the cost of water supplied under unsubsidized conditions.

**Water as a Human Right**

There is another water policy perspective that is garnering more widespread attention: should water be managed as a human right; meaning that all people should have access to clean and adequate water resources for basic personal and domestic needs. It could be construed that the human right aspect of water management is addressed as part of sound management practices, but it is also understood that this discussion goes well beyond the scope of this column and the areas environmental professionals typically deal with on a day-to-day basis. However, the human right perspective of water supply and management is an evolving principal with likely increasing impacts to sustainable water management in the coming years.

Conflicts exist between the various water management strategies discussed yet all play a role in providing a sustainable water supply. The importance of water on economic development must be balanced by the importance of water management in protecting the environment and providing a sustainable and affordable water supply.

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**The Resource vs. Commodity Debate from an Historical Perspective**

Although not directly related to water management, but an illustration that the discussion of the resource vs. commodity aspect of natural resource management is not new and a study of historical circumstances that shaped resource conservation, I highly recommend the book, *The Big Burn—Teddy Roosevelt and the Fire that Saved America* (Timothy Egan, Houghton Mifflin Harcourt 2009). This an excellent recounting of a massive forest fire in August 1910 in which more than three million acres were burned, five towns destroyed, and nearly 100 people were killed—all in the course of one weekend. A newly formed and fledgling Forest Service was thrust into a situation it was ill-equipped and ill-trained to handle and together with volunteers of all walks of life, a valiant effort was made to save as many lives and protect as many acres of forestland as possible. The book tells the story of debates in Congress both before and after the fire about the appropriate policy for managing forests. The book quotes statements made as part of that debate, including “unless a tree is felled and used, it has no value” and “not one cent for scenery”. We have the perspective of history to know how this debate and subsequent actions turned out. Managing water and managing forestland are certainly different, but the issue of the balance between trees viewed as a commodity and trees viewed as a resource addressed more than 100 years ago has similarities in the issues of today.