



Water Use and Abuse: Innovations in Conservation
Amy Vickers
President, Amy Vickers & Associates Inc.
Amherst, Massachusetts



By Catharine Brookes '11

Amy Vickers takes a regulatory and conservation-based approach to mitigating consumer water use and abuse. She targets her solutions to the individual, community, and local level, a range that encompasses all types of consumers. She outlines the water industrial complex, mismanagement and abuse, and local modes of food production as major points of concern.

The Water Industrial Complex

The private sector has recognized the value of water rights as the new form of investment, otherwise referred to as 'blue-gold'. Investments in technology and research-intensive "solutions" allow consumers to preserve the status quo through supply-side production. Desalination is an example of one of these expensive alternatives. It is a supply-side solution that is an energy-intensive and expensive alternative to conservation. It is the private sector that stands to gain if they are the providers of alternative water supplies or if they control water rights.

Vickers sees the water industrial complex as a threat to local interests and conservation and takes a strong stance against these supposed solutions to water scarcity issues in the United States. An economic approach to increasing water supplies runs counter to natural processes, and threatens the ecological systems that they alter. While the private sector pays for funding of such projects, in the end, it is the rest who pay by way of pollution, spent materials, and the loss of marine life.

Vickers argues that conservation is more cost effective than the water industrial complex. New systems aren't necessary if the fundamentals of our aging infrastructure are fixed. The United States loses much of its clean water supply to leaks. A conservative estimate of 20 to 30 percent of water is currently lost. Vickers argues that a standard of 5 percent leaks is not only a reasonable standard, but that we should settle for no less.

According to Jevon's Paradox, as technological advance occurs and boosts efficiency total consumption may increase rather than decrease. Vickers cites that this paradox characterizes water use in the U.S. Those with the water industrial complex propose that we can solve water use and abuse with water-efficient technology, but in the debate between efficiency and conservation, Vickers contests that conservation is the solution.

Mismanagement and Abuse

The U.S. is afflicted by communities and individuals who mismanage and abuse water through non-essential demand. The power of want has outweighed the basic demands of need. Residential water abuse includes the use of snow machines, creating backyard ice rinks, installing fountains, and irrigating landscaping. Unmetered private wells allow individuals to withdraw water unmonitored and without limitation. Communities have placed their water

supplies at risk by allowing commercial bottled water companies to tap into their resources. Commercial bottle water operations represent unmonitored water extractions.

In response to domestic and community water abuse, Vickers proposes strict regulations. In Massachusetts she helped to propose House Bill 778, which would put a five-year moratorium on commercial water extraction and allow local governments to pass laws that would protect community water rights. Commercial interests should be secondary to the public's needs. The Bill would also allow the science of ecological health to be evaluated.

Vickers does not propose such legislation without also addressing individual behavior. She is in support of regulating domestic water use. She is in support of restricting domestic irrigation systems for lawns. Her response to such systems is, "you can have them, just don't use them." An example of successful restrictions was in Franklin, Massachusetts where the community was only allowed to irrigate one day a week. Much of our water policy has been reactionary but, with regulation and monitoring, water can be used while maintaining a thriving ecosystem.

Local modes of food production: the movement towards organics

Suburban America has grown accustomed to manicured green lawns, despite their regional location. Lawns are a source of wasteful water use via irrigation and non-point source water pollution from fertilizer and pesticide runoff. Vickers encourages naturalistic landscaping by using native and adaptive plants to fill one's lawn. This lawn requires fewer inputs and improves the health of the ecosystem by increasing water retention and increasing biodiversity. Vickers also suggests that we move to more local modes of food production meaning, where conditions are favorable, individuals should reduce lawn cover by planting their own crops. Maintaining these gardens with organic farming methods requires less water than turf lawns. Growing or buying local supports the community, enhances the respect for the shared resource of water, and supports community relationships.

Solutions

Vickers doesn't accept sustainability conservation; rather, she recommends the following as standards for a thriving system:

- A standard of 5 percent leakage (maximum)
- Mandatory statewide and local irrigation restrictions
- Limiting area allowed to irrigate
- Organic farming principles applied to land care
- Protection of local sources from depletion, public interests over private interests

Vickers asks that the government use its authority to facilitate the regulation of individuals, local incentives, and community involvement. Her approach addresses behavioral and lifestyle changes, a community-based perspective on water rights, and infrastructural repair. She sees that an overhaul of the system is required for a thriving water environment and not a sustaining or maintaining one; these water conservation precautions are a part of our civic responsibility.

Resources:

Vickers, Amy. *Handbook of Water Use and Conservation*. WaterPlow Press, 2001.

<http://www.waterplowpress.com/>

Vickers serves on the Board of Directors for Alliance for Water Efficiency.
<http://www.allianceforwaterefficiency.org/>