Land Use and Watersheds

How to Reduce Costs While Improving the Reliability and Quality of Water Resources

"The water in a watershed is essential for supporting all life."

Mary Nichols,
Director, UCLA Institute of the Environment

A watershed is all the land that drains into a river, stream, lake, or estuary, or flows into a groundwater basin. All land is within a watershed. The water resources within a watershed are connected, both above and below ground.

Watersheds are critical to the health and welfare of our communities – they are the source of local water supplies for homes, industry and natural habitats.

Covering a watershed with buildings and pavement has multiple, negative consequences.

Hard, impervious surfaces allow less water to infiltrate the soil. This increases urban runoff and can lead to flooding and the pollution of our existing water supplies. Impervious surfaces prevent the replenishment of underground aquifers, the source of much of our drinking water.

We need to identify watersheds that are undeveloped, determine their value, and maintain the most important ones in an undeveloped state. They are our critical sources of water.

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The Value of Watersheds to Local Communities

We have been taking our watersheds for granted. Large state and federal water projects constructed in the 1900s created the impression that communities entitled to imported water did not need to protect their own watershed. However, in 2005, a State Appeals Court blocked construction of a large industrial park in Santa Clarita after finding it would rely on water from a state water project that would not be available during a drought.

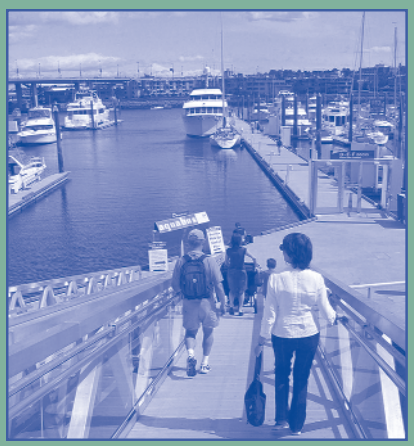
Today, we recognize that additional imported water supplies are highly unlikely, and that the most reliable water resources are the locally controlled supplies that can be protected by sustainable watershed management.

Watersheds maintain the health of forests, fisheries, wetlands, coastal resources, agricultural landscapes, habitat and water supplies. They are the foundation for a sustainable environment that supports recreational activities and healthy local economies.

Also, where land is completely paved over, treatment costs are about five times greater than in areas where less than 40% of the land in a watershed is paved.

Example: Because their local economies are dependent on fishing and tourism, the Northern California counties of Del Norte, Humboldt, Mendocino, Siskiyou and Trinity developed a watershed plan that has boosted salmon and steelhead populations and helped sustain the regional economy.

Example: New York City saved $6.5 billion in future costs by purchasing watershed lands rather than treating the contaminated water that would have resulted if they were developed.



Local Decisions Affect Regional Watersheds

Local governments for communities in the same regional watershed need to make their land-use decisions in concert with one another because each action can potentially protect or weaken the water system shared by all.

Every time a city council or county board of supervisors approves a new development, the resulting stormwater runoff has an impact on the watershed.

We are losing undisturbed areas of watersheds at a rapid rate. The U.S. population grew by 17% from 1982-97, while the amount of land covered over by development grew by an alarming 47%.

Preserving Watersheds Takes Community Teamwork

Communities need to work together to preserve their common watersheds. The benefits are many. They include:

- The preservation of local water quality.
- The preservation of adequate water supplies to support the regional economy.
- A reduced need to purchase expensive imported water.
- A reduced risk of floods.
- The preservation of natural habitats and the recreational resources that residents value.

Opportunities for Watershed Protection and

Communities should develop strategies with other stakeholders in the watershed to assure the preservation of undeveloped watershed areas, protect current water supplies, and reduce flooding. There are many venues for accomplishing this.

City/County Cooperation

Cities and counties can work together to protect their watershed.

Example: San Diego County and the cities of Escondido, Encinitas and Solana Beach formed a watershed-preservation partnership that facilitated the purchase of watershed land in collaboration with the San Elijo Lagoon Conservancy and the Escondido Creek Conservancy.

The communities are also working to maintain the land by clearing out creek debris, grappling with non-native plant species that crowd out native plants, and restoring native, natural shoreline habitats that filter pollution before it enters receiving bodies of water.

Example: Rather than continuing to try to tame the Napa River through a series of technological devices, a community coalition of county and city officials, wine-makers, farmers, Army engineers, environmentalists, business leaders and community-based organizations developed a watershed management plan that will save

$26 million per year by protecting 2,700 homes, 350 businesses and more than 50 public properties from flooding.

Spearheaded by local elected officials, Napa County residents voted to pay for the project by passing a ballot measure that raised the sales tax. Today, existing dikes and levees are being removed, restoring 650 acres of vital tidal wetlands, and allowing the river to run free.

Regional Planning Agencies

Councils of Government (COGs) that are responsible for producing Regional Transportation Plans have undertaken "visioning" exercises to develop regional growth strategies that identify where and how they should grow. These strategies include reducing the excessive paving of open space by planning for compact, walkable and mixed-use communities within already developed areas. These planning efforts can also specifically address water issues.

Example: San Diego's Council of Governments (SANDAG) has undertaken a visioning project that addresses where and how the region should grow. They have signed an MOU with the San Diego County Water Authority that makes water supply a component of the overall growth management strategy.

Example: In Northern California, the Association of Bay Area Governments' CalFed Task Force, in cooperation with the Bay Area Water Forum, sent letters to every county supervisor and mayor in the nine-county region to encourage them to incorporate the Ahwahnee Water Principles into their planning documents.

Metropolitan Planning Organizations (MPOs) are often, but not always, the same as the COG. In some areas, MPOs have developed complementary "carrots and sticks" to provide incentives for smart growth and transit-oriented developments. Nothing prevents them from pursuing further strategies specifically designed to protect their regional watersheds.

...Leadership Ideas for Elected Officials

Growth decisions should reflect whether water supplies are adequate to meet current and new demands on water supplies.

Local Agency Formation Commissions (LAFCOs)

A 1995 addition to the California Water Code (Section 10910) permits LAFCOs to require cities that want to increase their sphere of influence to provide information that can help determine if existing and planned future water supplies are adequate to meet current and new demands on these water supplies.

Although LAFCOs do not create conditions of approval, elected officials who serve on their boards can base their decisions on the impact of the proposed expansion on the local watershed. The Ahwahnee Water Principles could be added by individual LAFCOs as a guideline for approval.

Example: Sacramento County's LAFCO denied an annexation request by the City of Folsom because the local water agency concluded water supplies were inadequate to serve the new development of 15,000 homes.

City/County Coordination with Water Suppliers

The Urban Water Management Planning Act requires urban water suppliers with more than 3,000 customers to adopt an Urban Water Management Plan that explains how the agency will supply adequate water to meet the growth needs projected in up-to-date city and county land use plans in five-year increments.

This offers new opportunities to coordinate watershed protection on a sub-regional or regional basis, including the preservation of important open space.

Watershed Groups

Watershed management plans have been developed over the years by all sorts of watershed groups consisting of many stakeholders, including local governments, landowners, resource conservation districts, land conservancies, nonprofit organizations, and water supply agencies and water treatment operators. Most have acquired state and federal funds matched by local funds to preserve their local watersheds.

Example: In 1998, a group that included foundations, two conservancies and a resource conservation district signed a formal agreement to protect and improve the Carlsbad Hydrologic Unit through a collaborative watershed management plan. San Diego County and seven cities joined the efforts, along with federal, state and regional government agencies and nonprofit organizations. The project protects and restores habitat, and acquires watersheds to protect them from development.

More Opportunities for Watershed Protection

Integrated Regional Watershed Management Plans (IRWMP)

IRWMPs are a new program funded by a water bond approved by the voters in 2002. The bond provides grants for local projects if they are part of a collaborative regional planning effort. The plans may be the best tool available for local governments to plan future projects with water suppliers and develop mutually beneficial strategies.

Example: The Santa Ana Regional Watershed Planning Authority covers a Southern California region projected to grow by 5-10 million residents in the next 50 years. The Santa Ana IRWMP includes a message to the planning community to "integrate watershed thinking into the everyday planning process."

Ballot-Box Tools

In several regions of California, voter initiatives have led to urban limit lines that preserve watersheds by specifying where cities should grow – and where they should not. Sonoma and Ventura Counties have approved measures on a countywide level.

Example: In 1990, residents voted to create the Sonoma County Agricultural Preservation and Open Space District. It has acquired or protected from development more than 58,000 acres of land, using funds from a local sales tax. City leaders followed this countywide effort by pursuing a model of city-centered growth through voter-approved Urban Growth boundaries around eight of the county's nine cities.

LEAGUE OF CALIFORNIA CITIES

Water Boards

This fact sheet was funded by the California State Water Resources Control Board.

Ahwahnee Water Principles

The Ahwahnee Principles for Resource-Efficient Communities direct new growth, whenever possible, in compact development while the Ahwahnee Water Principles for Resource-Efficient Land Use guides development in undisturbed watersheds..

Suggested Language for General Plans

➥ City and county officials, the watershed council, LAFCO, special districts and other stakeholders sharing watersheds should collaborate to take advantage of the benefits and synergies of water resource planning at a watershed level.

– Ahwahnee Water Principles, Implementation Principle #2

RESOURCES

- **Local Government Commission**
  water.lgc.org
- **Ahwahnee Water Principles**
  lgc.org/ahwahnee/h2o_principles.html
- **State Water Resources Control Board**
  www.swrcb.ca.gov
- **California Department of Water Resources**
  www.dwr.water.ca.gov
- **California Bay-Delta Authority**
  calwater.ca.gov
- **Center for Watershed Protection**
  www.cwp.org

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