

Key Strategy No. X: Watershed Approach to California Landscapes

Background

Approximately half of California's potable water supply is used as supplemental irrigation on our urban landscapes given most ornamental plants commonly used often do not adapt to our natural climate. Recent and severe droughts are requiring that California accelerate toward more sustainable landscaping and water efficient landscape practices. A key strategy in support of this statewide transformation is taking a watershed based approach to designing the recovery and long term future of California Landscapes.

As defined by the California Urban Water Conservation Council (CUWCC), the **watershed approach** is an integrated, holistic, and watershed-based approach to site-specific landscape design, construction, and maintenance that transcends water-use efficiency to address the related benefits of rainwater capture and use; reduction of pollution, greenhouse gases, and green waste; energy and cost savings; and human and wildlife habitat improvements¹.

The optimal design, installation, and management of California's landscapes is critical to protecting our limited natural resources, capitalizing on associated economic benefits, and complying with existing and pending regulation. Watershed management must integrate and coordinate all the activities that affect a watershed's natural resources, water quality and water supply. The Department of Water Resources (DWR) has also adopted the watershed approach in their most recent update to the Model Water Efficient Landscape Ordinance (MWELo)²:

490 (c): Landscapes that are planned, designed, installed, managed and maintained with the watershed based approach can improve California's environmental conditions and provide benefits and realize sustainability goals. Such landscapes will make the urban environment resilient in the face of climatic extremes.

The ITP strongly supports the watershed approach to California landscapes, and highly emphasizes this innovative approach be embedded in statewide and local policies, procedures and methodology. As a result, the watershed approach is the focal point of all the ITP's recommendations aimed at improving our water management of urban landscapes.

Opportunities and Challenges

The following are primary areas of opportunities and challenges related to the watershed approach that

¹https://www.cuwcc.org/Portals/0/Document%20Library/Resources/Sustainable%20Landscapes/Watershed%20Approach_Briefing.pdf?timestamp=1430853508685

² http://www.water.ca.gov/wateruseefficiency/landscapeordinance/docs/E.OB_29_15_MWELo_Update_07-09-%2015_Draft_Final.pdf

need to be overcome as we convert our prominently turf-based communities into more water efficient landscapes:

- Provide mechanisms for decreased use of potable water for landscaping, also resulting in reduction of public expenditures on water supply/quality and increased cost savings for home owners (lower water bills and landscape upkeep costs)
- Provide mechanisms for increased rainwater capture, storage, and use to limit the need for supplemental irrigation
- Provide mechanisms for decreased stormwater runoff, flooding, and stream erosion
- Increase opportunities for graywater as sparingly-used supplemental irrigation and reduction of wastewater flow
- Maintain soil health and water retention capacity on all new and renovated landscapes
- Improve statewide, community and local stewardship ethics of California's native landscapes and increase the perceived shared value of water, especially clean water
- Provide for continued education and training of decision makers, landscape workforce and professionals, and California residents on water use, water budgeting, and proper plant selection such that water is use appropriately, efficiently, and with consideration to plant type, soil type, and climate
- Restoration of native flora and fauna biodiversity through "right plant, right place, right time" approach. Non-invasive, native/climate-appropriate plants selected for a specific climate and geography, spaced for mature size, and planted in the appropriate season help build soils, conserve water, and provide habitat
- Development of practical regulations and standards for turf replacement rebate programs that integrate the watershed approach
- Development of science-based, integrated solutions that mobilize the expertise and authority of multiple agencies and organizations, with success measured through monitoring and other data gathering
- Research new and innovative approaches to plant-based science, water management and irrigation technologies in support of the most efficient irrigation for our already constructed landscapes
- Provide incentives to expedite the market transformation process to the watershed approach
- Provide funding for research to quantify the best methods, equipment, processes and programs to expedite the market transformation
- Provide funding for education to professional and consumers on the watershed approach and how to implement watershed approach mechanisms (i.e., irrigation management)

Key Actions to Support this Strategy

All of the ITP's recommendations are in support of this essential strategy, which are tied to some key objectives:

- Manage water as effectively as possible on existing and new landscapes, which includes new irrigation equipment standards, water budgeting and requiring permitted systems.
- Retrofit existing landscapes through financial incentives to replace high water consuming ornamental plants, including turf grass.

- Design and construct new landscapes as efficiently as possible leveraging implementation and enforcement around the Model Water Efficient Landscape Ordinance (MWELO), or local equivalent policy.
- Transform the workforce to meet the goal of more watershed based landscapes designed, installed and managed by trained and certified professionals with continuing education requirements.
- Change social and cultural norms through education to gain greater acceptance of the minimal supplemental irrigation needed by many native and climate appropriate ornamental plants and through irrigation management education.
- Accelerate the change with more visibility in state and publicly owned buildings that are highly water efficient with demonstration landscapes.
- Include funding for research to quantify efficiency and value of programs, equipment, technologies, techniques, regulations, etc.