

## **The Modified Ahwahnee Water Principles for Resource Efficient Land Use Adopted by the City of Palo Alto –9/13/05**

### **Preamble**

Cities and counties are facing major challenges with water contamination, storm water runoff, flood damage liability, and concerns about whether there will be enough reliable water for current residents as well as for new development. These issues impact city and county budgets and taxpayers. Fortunately there are a number of stewardship actions that cities and counties can take that reduce costs and improve the reliability and quality of our water resources.

The Water Principles below complement the Ahwahnee Principles for Resource-Efficient Communities that were developed in 1991. Many cities and counties are already using them to improve the vitality and prosperity of their communities.

### **Community Principles**

1. Community design should be compact, mixed use, walkable and transit-oriented so that automobile-generated urban runoff pollutants are minimized and the open lands that absorb water are preserved to the maximum extent possible.
2. Natural resources such as wetlands, flood plains, recharge zones, riparian areas, open space, and native habitats should be identified, preserved and restored as valued assets for flood protection, water quality improvement, groundwater recharge, habitat, and overall long-term water resource sustainability.
3. Water holding areas such as creek beds, recessed athletic fields, ponds, cisterns, and other features that serve to recharge groundwater, reduce runoff, improve water quality and decrease flooding should be incorporated into the urban landscape, while meeting best practices for mosquito control and groundwater pollution prevention.
4. All aspects of landscaping from the selection of plants to soil preparation and the installation of irrigation systems should be designed to reduce water demand, retain runoff, decrease flooding, and recharge groundwater.
5. Permeable surfaces should be used for hardscape where practical. Impervious surfaces should be minimized wherever practicable or runoff water should be redirected so that land is available to absorb storm water, reduce polluted urban runoff, recharge groundwater and reduce flooding.
6. Dual plumbing that allows gray water from showers, and non-kitchen sinks to be reused for subsurface landscape irrigation should be encouraged for new and remodeled buildings, and education programs should be developed on the proper construction and operation of systems that use grey water.
7. Community design should maximize the use of recycled water or other nonpotable water supplies for appropriate applications including outdoor irrigation, toilet flushing, and commercial and industrial processes. Purple pipe should be installed in large, new construction and remodeled (“remodeled”, used here, means when the plumbing is being replaced) buildings in anticipation of the future availability of recycled, or other nonpotable, water.
8. Urban water conservation technologies such as low-flow toilets, efficient clothes washers, and more efficient water-using industrial equipment should be incorporated in all new construction and retrofitted in remodeled buildings.

9. Ground water treatment and brackish water desalination should be pursued necessary and practical to maximize locally available, drought-proof water supplies.

### **Implementation Principles**

1. Water supply agencies should be consulted early in the land use decision regarding technology, demographics and growth projections.
2. City and county officials, the watershed council, LAFCO, special districts stakeholders sharing watersheds should collaborate to take advantage synergies of water resource planning at a watershed level.
3. The best, multi-benefit and integrated strategies and projects should be implemented before less integrated proposals, unless urgency demands
4. From start to finish, projects and programs should involve the public, and increase the sharing of and access to information. The participatory focus on ensuring that all residents have access to clean, reliable and affordable drinking and recreation.
5. Plans, programs, projects and policies should be monitored and evaluated the expected results are achieved and to improve future practices.