


TO: HONORABLE CITY COUNCIL 

FROM: CITY MANAGER **DEPARTMENT:** PUBLIC WORKS

DATE: APRIL 28, 2008 **CMR:203:08**

SUBJECT: ADOPTION OF AN ORDINANCE TO PROMOTE THE USE OF RECYCLED WATER

RECOMMENDATIONS

Staff recommends that Council adopt the proposed Ordinance (Attachment A) to promote the use of recycled water and move toward a fully sustainable water supply system in California.

BACKGROUND

The City of Palo Alto treats wastewater from homes and business at its Regional Water Quality Control Plant (RWQCP). The treated wastewater (recycled water) meets all standards for use to irrigate landscape, and for flushing toilets and urinals (toilets/urinals). Currently, the recycled water is used for irrigation at the Palo Alto Golf Course, Greer Park, and at the RWQCP. A pipeline is under construction to deliver recycled water to Mountain View (north of the Bayshore Area) for irrigation and potentially for toilet/urinal flushing. This pipeline project will be completed in approximately one year and implements a portion of the Master Plan for recycled water initially prepared in 1992. Palo Alto is studying the advisability of implementing a second portion of the Master Plan (covering the Stanford Research Park and associated areas) in the near future. To obtain State funding for such a project, State funding guidelines require that Palo Alto mandate the use of recycled water for those areas where it is available.

DISCUSSION

The proposed Ordinance would meet the requirements for possible State funding for a pipeline project within Palo Alto. It would require that customers (other than single-family residences), adjacent to a City recycled water pipeline, use the recycled water when it becomes available. However, retrofitting buildings to require dual interior plumbing (for toilet/urinal flushing) is not being proposed. (Dual plumbing for toilet/urinal flushing is addressed later in this report.)

Other portions of the proposed Ordinance are not mandated by State funding requirements. These portions would require certain new and remodeled buildings to be constructed in a manner to readily accept recycled water (for the purposes described below) when it becomes available. These requirements are proposed because it is far cheaper to build in these features during initial construction rather than retrofit them.

Section 16.12.025 of the proposed Ordinance requires certain newly constructed landscaping to be installed with on-site infrastructure compatible with recycled water use. This is anticipated to cost very little additional money because new construction must already have a separate irrigation system, the main feature associated with the use of recycled water. The additional expense would primarily stem from use of purple colored pipe and certain other hardware requirements. (State regulations require “purple pipe” for recycled water pipelines to distinguish them from potable water lines.)

Section 16.12.030 of the proposed Ordinance deals with dual plumbing toilet flushing, urinal flushing, and floor trap priming. This section does not require retrofitting of existing buildings. There are two situations where this would be required for new construction and remodeling. First, it would be required for buildings greater than 10,000 square feet (sq. ft.) which are inside a “Recycled Water Project Area.” Currently, there are no such areas within Palo Alto. Therefore, such areas would have to be so designated by the City Council in the future. Such a designation may be recommended by staff in the near future for the Stanford Research Park area and associated areas. The cost of dual plumbing for building interiors has been estimated to be on the order of 1% of the total building cost. Second, dual interior plumbing would be required for new (and remodeled) construction greater than 100,000 sq. ft. located anywhere in the City. Thus, even if the project is not within a Recycled Water Project Area, it would have to be dual plumbed if it met the 100,000 sq. ft. threshold. This requirement addresses the long term reality of water shortages in the Bay Area which will ultimately dictate more severe measures. Requiring dual plumbing now, at least for the very largest of buildings, will set the stage for substantial water reductions at a relatively small cost when compared to building retrofit. When a recycled water pipeline is ultimately constructed, the building would be ready to accept it. Toilet/urinal flushing can account for as much as 40% of internal water use. Staff believes it would be wise to take this opportunity to ultimately achieve such substantial water savings in Palo Alto’s largest buildings. An exemption process is provided in the proposed Ordinance because certain proposed projects may present unique construction challenges and costs. The City Manager would hear any appeals. Details of the exemption process will be established in the Rules and Regulations being developed now.

Other Ordinance provisions establish the administrative features associated with the requirements, including: permitting, an exemption process, and enforcement of a recycled water program for Palo Alto. The details will be contained in Rules and Regulations referred to in the Ordinance. Most cities with established recycled water programs have set up program administration in this way. Palo Alto staff is working on Rules and Regulations now for adoption in Fiscal Year (FY) 2008-09.

RESOURCE IMPACT

Administration of a Recycled Water Program will not dictate a need for new resources in FY08-09. As the program becomes a reality in subsequent years, resources for design reviews and inspections will be needed. Staff envisions establishing a rate structure for the sale of recycled water which would cover those costs.

For those limited buildings affected by the Ordinance, the cost of construction could be on the order of 1% greater than standard construction. This would be true, in principle, for City projects as well as private projects. However, it is unlikely that the proposed criteria would trigger coverage of any City projects.

POLICY IMPLICATIONS

The recommended Ordinance is consistent with the City’s Comprehensive Plan and the Climate Protection Plan.

ENVIRONMENTAL REVIEW

The Recycled Water Ordinance is exempt from coverage under the California Environmental Quality Act (CEQA) under Sections 15307 and 15308 of Title 14 of the California Code of Regulations coupled with Sections 13554(c) and 13535.3 of the California Water Code.

ATTACHMENTS

Attachment A: Proposed Ordinance

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