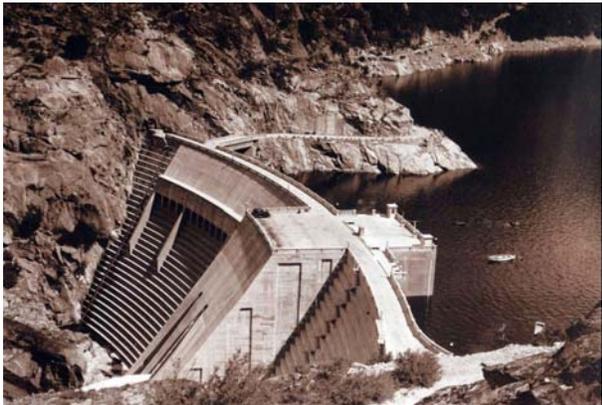


2005 URBAN WATER MANAGEMENT PLAN



CITY OF HAYWARD

2005

**URBAN WATER MANAGEMENT
PLAN**

DECEMBER 2005



CITY OF
HAYWARD
HEART OF THE BAY

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URBAN WATER MANAGEMENT PLAN DEVELOPMENT AND ADOPTION

The 2005 Urban Water Management Plan (UWMP) for the City of Hayward has been prepared and adopted in accordance with requirements of the Urban Water Management Planning Act, a copy of which is included in Appendix A.

PUBLIC PARTICIPATION

Hayward is an ethnically and socio-economically diverse community. Public participation in the development of the UWMP was encouraged. Notices of public hearing were published in the Daily Review, the local newspaper with the largest circulation in Hayward. Notices were posted at City Hall, in Hayward public libraries, on the City's website and on the cable television public access channel. Copies of the draft plan were available for public review and comment prior to the hearing.

PLANNING COORDINATION

The City of Hayward coordinated with its water supplier, the San Francisco Public Utilities Commission (SFPUC), in preparation of the UWMP. Hayward is a member of the Bay Area Water Supply and Conservation Agency (BAWSCA), which was created in May 2003 to represent the regional interests of 26 cities and water districts, and 2 private utilities, in Alameda, Santa Clara and San Mateo counties that purchase water on a wholesale basis from the San Francisco Regional Water System. The City participates in regional water conservation programs through BAWSCA and in efforts to work with San Francisco to ensure that the regional water system is reliable. The 27 other BAWSCA members were notified of the City's intention to update its Urban Water Management Plan.

The City owns and operates its own wastewater treatment facility and is a member of the East Bay Dischargers Authority (EBDA), a joint powers authority represented by five agencies that dispose treated wastewater through a common outfall to the San Francisco Bay. EBDA was notified of the City's intention to prepare the UWMP and provided information regarding water recycling that was incorporated into the Plan. Through its membership in EBDA, the City may explore potential future water recycling and reclamation projects.

Hayward's General Plan, adopted in 2002 and most recently amended in 2003, was used as a resource in developing water demand projections, and City Planning staff reviewed the UWMP.

In addition to the above agencies, the City also notified the East Bay Municipal Utility District and County of Alameda of Hayward's intention to update and adopt the UWMP and made copies of the Plan available to these agencies for review.

ADOPTION OF 2005 URBAN WATER MANAGEMENT PLAN

The City of Hayward City Council adopted the 2005 Urban Water Management Plan at its regular meeting on Tuesday, December 6, 2005 after a public hearing, broadcasted on cable television and on the City's website. A copy of the resolution and notices regarding the preparation and adoption of the UWMP are included in Appendix B.

The adopted UWMP is available for review by the public during business hours at the Hayward City Hall. Paper or electronic copies may also be mailed upon request.

SERVICE AREA

This section provides a brief history of the City of Hayward Water System, a description of the local climatic, current and projected population estimates, and development factors that may impact future water demand.

HISTORY

Hayward is a city of approximately 146,000 residents, located in Southern Alameda County on the east shore of San Francisco Bay. Hayward was incorporated in 1876 and occupies an area of about 61 square miles. It is generally flat, except for the areas east of Mission Boulevard, where the elevation increases from 100 to 1,500 feet above sea level.

Settlement in the Hayward area began in about 1851 with the opening of a general store in what is now the downtown. Hayward remained essentially a small agrarian town until the end of World War II. Since then, it has undergone substantial changes. A tremendous increase in population occurred in the 1950s and 1960s as a result of the post-war construction boom. Hayward experienced a surge in industrial development during the 1960s and 1970s, which created employment opportunities and balanced, to some extent, the housing that was developed in earlier decades. During the last two and one half decades, Hayward has seen continued residential and industrial growth, mostly in the form of infill development. Today Hayward enjoys a large and diverse industrial sector, including food and beverage and high-technology manufacturing, along with a growing number of biotechnology firms.

Water service is provided by the City of Hayward for residential, commercial, industrial, governmental, and fire suppression uses. Originally, wells were used to supply Hayward with water. During the 1940s and 1950, the well water was supplemented by water purchased from San Francisco's Hetch Hetchy system, owned and operated by the San Francisco Public Utilities Commission (SFPUC). In 1962, Hayward entered into an agreement with the SFPUC to purchase all Hayward water from the SFPUC. Hayward constructed over 20 miles of aqueduct in order to deliver Hetch Hetchy water and ceased providing well water in 1963.

SERVICE AREA POPULATION

Hayward's current residential population is about 146,000 (California Department of Finance estimate of January 1, 2005). The vast majority of this population, plus almost all industrial and commercial entities, are served by the City of Hayward Water System. A very small portion of north Hayward, less than 1% of Hayward's total population, is served by the East Bay Municipal Utility District. The population estimates shown in

Table 2-1 are excerpted from the Association of Bay Area Governments (ABAG) Projections 2002 and are consistent with the population data that was used to develop future water demands.

*Table 2-1
Current and Projected Population*

Year	2005	2010	2015	2020	2025	2030
Population	146,000	150,500	153,400	156,600	160,300	162,800

Sources: ABAG Projections 2002, and SFPUC Wholesale Customer Water Demand Projections Technical Report, 2004

CLIMATE

Hayward has a Mediterranean coastal climate, with mild and dry summers, and cool winters. Most of the precipitation is received during the winter months, with only very occasional summer showers. Banks of fog often move inland during summer nights from the Pacific Ocean and evaporate during the day. The total water consumed in Hayward is moderately influenced by precipitation and temperature.

Table 2-2 illustrates average evapotranspiration (ET), rainfall, and temperature data. ET is the loss of water to the atmosphere by the combined processes of evaporation (from soil and plant surfaces) and transpiration (from plant tissues), and is an indicator of how much water crops, lawns, gardens, and trees need for healthy growth and productivity. ETo refers to evapotranspiration as measured from a grass surface.

*Table 2-2
Climate Characteristics*

Month	Standard Monthly Average ETo ⁽¹⁾	Average Rainfall (inches) ⁽²⁾	Average Min Temperature (Fahrenheit) ⁽²⁾	Average Max Temperature (Fahrenheit) ⁽²⁾
January	1.48	3.84	42.0	55.2
February	1.88	2.73	45.2	59.0
March	3.35	2.40	46.6	61.2
April	4.74	1.36	48.7	64.0
May	5.36	0.36	51.7	66.6
June	6.25	0.13	54.6	69.5
July	6.74	0.05	56.1	70.9
August	5.99	0.05	56.9	71.5
September	4.52	0.24	56.7	73.5
October	3.43	1.12	52.8	69.9
November	1.82	2.56	47.5	62.6
December	1.48	3.20	42.8	56.0
Annual	47.04	18.03	50.1	65.0

- (1) Source: California Irrigation Management Information System (CIMIS), State of California Department of Water Resources
- (2) Source: 30-Year Monthly Climate Summary for Oakland WSO AP, Desert Research Institute, Western Regional Climate Center

DEMOGRAPHIC AND ECONOMIC TRENDS AFFECTING WATER MANAGEMENT

The water demand projections presented in the UWMP are based, in part, in population and business trends developed by ABAG. The population data in Table 2-1 reflects ABAG projections. Over the next 20 years, increased water demand will result from residential development, including infill, redevelopment, and construction of larger homes. The number of households is expected to increase by about 17% between 2005 and 2030.

ABAG also estimates a 34% increase in the number of jobs in Hayward between 2005 and 2030, which is twice as large as the projected population growth for the same period, with a significant portion of the new employment occurring in the manufacturing/ wholesale and health/education fields. Smaller overall increases are expected in the retail and professional services.

A full discussion of the specific demographic and development issues that may affect water demand is located in the Projected Water Use chapter of the UWMP.

WATER SUPPLY AND DISTRIBUTION

This section describes the City of Hayward's current and future water supplies, both for long-term and short-term (emergency) use.

WATER SUPPLY

Hayward's sole source of drinking water since 1963 has been the City and County of San Francisco's regional system, operated by the Public Utilities Commission (SFPUC). This supply is predominantly from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watershed and facilities in Alameda.

The amount of imported water available to the SFPUC's retail and wholesale customers is constrained by hydrology, physical facilities, and the institutional parameters that allocate the water supply of the Tuolumne River. Due to these constraints, the SFPUC is very dependent on reservoir storage to firm up its water supplies. The SFPUC serves its retail and wholesale water demands with an integrated operation of local Bay Area water production and imported water from Hetch Hetchy. In practice, the local watershed facilities are operated to capture local runoff.

The business relationship between San Francisco and its wholesale customers is largely defined by the "Settlement Agreement and Master Water Sales Contract" executed in 1984. The Master Contract primarily addresses the rate-making methodology used to set wholesale water rates for its wholesale customers and water supply and water shortages for the regional system. The contract expires in June 2009.

In terms of water supply, the Master Contract provides for a 184 million gallon per day (mgd) supply assurance to the SFPUC's wholesale customers, subject to reduction in the event of drought, water shortage, earthquake, other disasters, or rehabilitation and maintenance of the system, which may affect water distribution. The SFPUC's wholesale customers have agreed to the allocation of 184 mgd among themselves, with each entity's share of the supply assurance set forth in a schedule adopted in 1993. The supply assurance survives the termination of the Master Contract in 2009.

Hayward's water supply from SFPUC is based on a supply agreement signed by both agencies in 1962. This agreement provides Hayward with all of its needed water supply, as long as such supplies are within SFPUC's ability to deliver and water supply conditions are normal. In effect, Hayward does not have a numerical limit on the amount of water that is provided by SFPUC; however, Hayward has strived to keep water demands as low as

possible through water conservation and demand management. The contract has no expiration date.

On April 6, 2005, Hayward provided SFPUC with the amounts of water that Hayward expected to purchase for the next 25 years, in five-year increments. These estimates, summarized in Table 3-1, were consistent with the projected purchases identified in the 2004 SFPUC Wholesale Customer Water Demand Projections and discussed fully in Chapter 4, Projected Water Demands.

Table 3-1
Water Purchase Estimates – In Million Gallons/Day

	2010	2015	2020	2025	2030
Demand Projection	21.8	22.8	24.4	26.1	27.9

Sources: Wholesale Customer Water Demand Projections and 2030 Purchase Estimates, San Francisco Public Utilities Commission, 2004. Confirmed in communication to SFPUC dated April 6, 2005

On June 1, 2005, SFPUC provided written water availability projections verifying its ability to meet Hayward’s projected demand under normal operating conditions. The written documentation provided by the City of Hayward and SFPUC is included in Appendix C.

The following table summarizes current and anticipated water supply sources.

Table 3-2
Current and Planned Water Supplies – In Million Gallons/Day

Source	2005	2010	2015	2020	2025	2030
Purchased from SFPUC	19.0	21.8	22.8	24.4	26.1	27.9
% of Supply	100%	100%	100%	100%	100%	100%

Table 3-3
Current and Planned Water Supplies – In Acre-Feet/Year

Source	2005	2010	2015	2020	2025	2030
Purchased from SFPUC	21,283	24,419	25,539	27,331	29,236	31,252
% of Supply	100%	100%	100%	100%	100%	100%

Sources: Wholesale Customer Water Demand Projections and 2030 Purchase Estimates, San Francisco Public Utilities Commission, 2004. Confirmed by SFPUC in communication dated June 1, 2005

WATER SUPPLY PROJECTS AND PROGRAMS

Water Supply Improvement Program

In order to enhance the ability of the SFPUC water supply system to meet identified service goals for water quality, seismic reliability, and water supply, the SFPUC is undertaking a Water System Improvement Program (WSIP). The WSIP will deliver capital improvements aimed at enhancing the SFPUC’s ability to meet its water service mission of providing high

quality water to its customers in a reliable, affordable and environmentally sustainable manner.

The origins of the WSIP are rooted in the *Water Supply Master Plan* (April 2000). Planning efforts for the WSIP gained momentum in 2002 with the passage of San Francisco ballot measures Propositions A and E, which approved the financing for the water system improvements. Also in 2002, Assembly Bill 1823, the Wholesale Regional Water System Security and Reliability Act, was passed in and signed into law. This legislation sets forth requirements and timelines for the adoption and implementation of the WSIP, which is expected to be completed in 2016.

Figure 3-1 indicates the locations of the various capital improvement projects which comprise the WSIP.

Figure 3-1
Location of WSIP Capital Improvement Projects



Water Supply Projects

The current supplies available to the SFPUC Regional Water System include the Tuolumne River (through the Hetch Hetchy System) and supplies from local reservoirs. The 2005 UWMP assumes that these existing supplies will continue to be available in the future. As demand increases over time, SFPUC will continue to rely on the existing sources to meet demand in most years, plus additional water sources identified in the WSIP in dry years. These dry year supplies are summarized below in Table 3-4. The 2005 UWMP assumes that these resources will be available in the volumes and timeframes indicated.

Table 3-4
Water Supply Options for 2010 through 2030 – In Acre-Feet

	2005	2010	2015	2020	2025	2030
Crystal Spring Reservoir (22 billion gal)	No	Yes	Yes	Yes	Yes	Yes
Westside Basin Groundwater (acre-feet annually)	0	4,500	7,000	8,100	8,100	8,100
Calaveras Reservoir Recov (31.5 billion gal)	No	No	Yes	Yes	Yes	Yes
Districts Transfer (acre-feet annually)	0	23,200	23,200	29,000	29,000	29,000

Source: SFPUC in communication dated June 1, 2005

Program Environmental Impact Report

A Program Environmental Impact Report (PEIR) is being prepared under the California Environmental Quality Act (CEQA) for the WSIP. A PEIR is a special kind of environmental impact report under CEQA that is prepared for an agency program or series of actions that can be characterized as one large project. PEIRs generally analyze broad environmental effects of the program with the acknowledgement that site-specific environmental review may be required at a later date.

Projects included in the WSIP will undergo individual project-specific environmental review as required. Under CEQA, project specific environmental review would result in preparation of a categorical exemption, negative declaration, or environmental impact report. Each project will also be reviewed for compliance with the National Environmental Policy Act and local, state and federal permitting requirements as necessary.

GROUNDWATER

The City of Hayward does not currently nor plans to use groundwater to meet any portion of its day-to-day normal water demand. Five emergency wells located within the City, and using local ground water, can provide a total of 13.6 million gallons per day. These wells do not run concurrently with the SFPUC source and have been certified by the California Department of Health Services for short duration emergency use only. While the wells are not considered part of the City’s drinking water supply, Table 3-5 is included to demonstrate the capacity of wells in the event that SFPUC transmission lines are not able to meet the City’s demands for a limited time.

Table 3-5
Emergency Well Capacity – In Million Gallons/Day

Well Identification	Capacity
Well A	1.7
Well B	2.9
Well C	4.6
Well D	1.4
Well E	3.0
Total	13.6

Source: City of Hayward Water System Master Plan, 2002

WATER TRANSFERS AND EXCHANGES

The City has established agreements with two neighboring agencies, East Bay Municipal Utility District (EBMUD) and Alameda County Water District (ACWD), to receive or deliver water in the event of an emergency. A total of three interties are capable of delivering up to about 14 mgd. Delivery would depend upon each agency’s ability to provide water without negatively impacting supplies or their own customers and emergency services. Table 3-6 summarizes the potential water available through these emergency interties.

Table 3-6
Emergency Interties and Capacities – In Million Gallons/Day

Agency	Potential Flow
Alameda County Water District	5.8
East Bay Municipal Utility District (two locations)	8.7
Total	14.5

Source: City of Hayward Water System Master Plan, 2002

A project to convey potable water between SFPUC and EBMUD, using existing and new City of Hayward facilities, is currently under construction and expected to be completed in summer 2006. This intertie could supply up to 30 mgd from SFPUC to EBMUD and vice versa, providing Hayward with access to a portion of this supply.

All of the interties discussed in this section are intended for short-term emergency use only. There are currently no opportunities for the transfer or exchange of water supplies for long-term use.

RECYCLED WATER

The City of Hayward is a member of the East Bay Dischargers Authority (EBDA), a joint powers agency disposing of treated water through a large outfall to San Francisco Bay. Further information about current and potential water recycling projects in which the City participates, through EBDA, is found in the Water Recycling chapter. For the purposes of

projecting water demand, however, only purchased water is shown in Tables 3-2 and 3-3 due to the uncertainty of recycled water project implementation.

DESALINATION

Hayward currently has no opportunities for development of desalinated water supplies.

RESOURCE MAXIMIZATION

The City is committed to resource conservation, implementing water conservation measures, both locally and as part of BAWSCA's regional program. BAWSCA and its member agencies look for opportunities to work with other water agencies and leverage available resources in implementing water use efficiency projects. For example, in 2005, the SFPUC and BAWSCA entered into a Memorandum of Understanding regarding administration of a spray valve installation program to offer and coordinate installation of water conserving spray valves to food service facilities in BAWSCA member service areas, including Hayward. Also, the Bay Area Efficient Clothes Washer Rebate Program, a single rebate program offered by all major water agencies in the greater Bay Area, including BAWSCA and SFPUC, received \$1.5 million in Proposition 50 grant funds for implementation in 2006-07. BAWSCA and its member agencies will continue to look to partner with other agencies to develop regional water conservation efforts that go beyond local issues of supply and cost effectiveness to examine costs, benefits and other related issues on a system-wide level. The goal is to maximize the efficient use of water regionally by capitalizing on variations in local conditions and economies of scale.

Through its membership in EBDA, the City is also involved in water recycling, with the diversion of reclaimed water to a local golf course for irrigation. The 1993 Water Recycling Master Plan, discussed later in the UWMP, identifies other potential recycling projects. The City participated in the Bay Area Regional Water Recycling Program and has included a Recycled Water Feasibility Study in its five-year capital improvement program to update ongoing efforts to develop viable recycled water projects.

CURRENT AND PLANNED WATER DISTRIBUTION FACILITIES

Hayward delivers potable water through a pressurized distribution system, comprised of approximately 325 miles of pipeline, thirteen water storage reservoirs, seven pump stations delivering water to the upper pressure zones, transmission system pressure reducing valves, numerous zonal pressure reducing valves, and two booster pump stations. Water is received into Hayward through two main aqueducts. The facilities are monitored through a Supervisory Control and Data Acquisition (SCADA) system.

Distribution System Projects

In 2002, the City updated its *Water System Master Plan Update* to address major development plans and corresponding water demands and to account for improvements that had been constructed since the last Master Plan. An analysis was completed to assess future water demands, pumping capacity, water storage, distribution system hydraulics and water quality. The Master Plan update includes a number of recommended improvements. The City has constructed some of the recommended projects, such as upgrades to the Highland Chain pump stations. Other projects that are planned or currently under construction include improvements to the Garin Hill Pump Station, construction of a new Highland 1285 pump station and reservoir, various pipe looping projects, and replacement of aging mains. The City prepares a five-year capital improvement program annually.

The City has also made extensive efforts to seismically improve the water system, including seismic retrofits of several reservoirs and improvements to pipes at faultline crossings. Additional seismic projects are identified in the five-year capital improvement program. Recently, seismic design guidelines were prepared for future Hayward water facilities.

PROJECTED WATER DEMANDS

This section addresses past, current and projected water use by customer sector and expected water usage patterns.

PROJECTED WATER USE DEVELOPMENT

The water demand projections were developed as part of a series of technical studies performed in support of the Capital Improvement Program for the SFPUC Regional Water System: SFPUC Wholesale Customer Water Demand Projections (URS 2004); SFPUC Wholesale Customer Water Conservation Potential (URS 2004); SFPUC Wholesale Customer Recycled Water Potential (RMC 2004); and SFPUC 2030 Purchase Estimates (URS 2004).

Water demand projections for the wholesale customers were developed using an “end use” model. Two main steps were involved: 1) establishing base-year water demand at the end-use level (such as toilets, showers) and calibrating the model to initial conditions; and 2) forecasting future water demand based on future demands of existing water service accounts and future growth in the number of water service accounts.

Establishing the base-year water demand at the end-use level was accomplished by breaking down total historical water use for each type of water service account (single-family, multi-family, commercial, irrigation, industrial, etc.) to specific end uses, such as toilets, faucets, showers, and irrigation. Forecasting future water demand involved determining the growth in the number of water service accounts in a wholesale customer service area. Once these rates of change were established, they were entered into the model and applied to those accounts and their end water uses. The model also incorporated the effects of the plumbing and appliance codes on fixtures, including toilets (1.6 gal/flush), showerheads (2.5 gal/minute), and washing machines (lower water use) on existing and future accounts.

The next step in the SFPUC study was to evaluate the cost effectiveness and water savings potential of various water conservation measures to determine how much of the projected demand could be met through cost effective demand management. The potential water conservations savings were deducted from the total demand to achieve a total purchase estimate from SFPUC. The final projected demand in this section reflects the SFPUC purchase estimate through 2030.

DEVELOPMENT FACTORS AFFECTING WATER DEMAND

Residential

Hayward's current housing stock is a mix of single-family detached, condominium, multi-family, and mobile home units. Approximately 60 percent of the total housing units are single-family detached, condominiums, and duplex to fourplex units. Hayward residents are among the lowest per capita water users as compared to other purchasers of SFPUC water. The demand study base year (2001) data shows Hayward's use to be 61 gallons per capita per day (gpcd) in single-family residential units and 54 gpcd in multi-family units.

There is potential for about 4,500 additional housing units, based on General Plan policies, over a 25-year planning period. Infill development and intensification of underutilized properties will comprise much of the residential building activity in the coming years. About 53% of the current units are owner-occupied; that is, the units are lived in by the family that owns the property. The City's Housing Element encourages the development of ownership housing and programs to assist tenants in becoming homeowners. The City has established a goal of a 70% owner-occupancy rate.

Several factors will impact per capita and overall residential water use during the course of the planning period, including:

- Increased projected population from the current 146,000 to 162,800 in 2030, an 11.5% increase
- Development of new housing units, as reflected in the City's General Plan, primarily through in-fill development and intensification of underutilized properties
- Rehabilitation of existing housing stock
- Increased number of persons per household, as projected by Association of Bay Area Governments

Several large residential projects are currently in development review or construction. In addition, the South Hayward BART Area study is currently underway to determine the potential development within this underutilized area. The potential number of dwelling units in the study area could be in the range of 3,000 to 5,000 net new dwelling units, depending on the final approved density for the area.

The Mt. Eden area is an unincorporated island, completely surrounded by Hayward. Water service is provided by a small, private, 100-customer community water company that utilizes local groundwater through a single well. Once the proposed annexation is finalized, it is expected that properties will gradually (over the next ten or so years) connect to the Hayward water system. There is potential for about 475 new dwelling units, plus development of commercial and light industrial businesses. The overall demand for this area, including residential and business uses, is projected to be about 300,000 gpd.

In addition to the development of new units, the existing housing stock is undergoing significant rehabilitation. More than 70% (about 15,000 units) of Hayward's single-family detached homes are of 1950s vintage. Some of these homes, which remain more affordable than new and existing homes in other Bay Area cities, are being renovated and upgraded over time, including installation of water efficient landscaping where it is currently minimal or non-existent. The City is encouraging renovation efforts with funding programs to clean up and landscape common areas within neighborhoods and to assist homeowners in rehabilitating their private properties. It is reasonable to assume that per capita water usage will increase above the current low usage as a result of these efforts.

The City has adopted and enforces a Water Efficient Landscape Ordinance for new development, both residential and commercial. The Ordinance, which is administered by a licensed landscape architect on staff, identifies the type of plant materials and irrigation systems that must be used in new developments to encourage low water use while maintaining attractive surroundings.

The composition of housing units (single-family and multi-family) in Hayward through the planning period were accounted for in the residential demand projections, with consideration of new development of both single-family and multi-family units and upgrade of existing properties.

Commercial

Commercial businesses include a typical mix of office-type services, specialty and big box retail stores, auto dealerships, eating establishments, and a regional shopping mall. Hayward's economic development goals include continuation of efforts to attract commercial businesses that will serve City residents, as well as the region.

Hayward is implementing a Downtown Design Plan to maintain the Downtown area as a focal point so that it continues to express the City's history, provide a venue for cultural event vitality, and remain a center for social, political and other civic functions. Downtown redevelopment efforts will focus on making it a pedestrian-friendly area with development of retail, residential, and office space.

In addition to Downtown, other areas that have been identified for commercial and mixed-use development include:

- Cannery Area
- Mission-Foothill Corridor
- South Hayward BART Station Area

A new 18-hole water-efficient golf course is also under construction.

Hayward is home to two regional public post-secondary educational institutions – California State University and Chabot Community College. Both have student populations of about 13,000. California State University is currently implementing several projects to increase the number of classrooms and teaching labs, expand the student union, and add student housing. Chabot College is preparing a Facilities Master Plan to guide future campus development, including additional teaching space. Both institutions expect to increase their water consumption as a result of their growth.

Industrial

Hayward has a large and diverse industrial sector, including food and beverage processing, high technology research and manufacturing, an increasing number of biotechnology research and development firms, and a wide range of other businesses. Hayward’s central location in the Bay Area, availability of land zoned for industrial use, and relatively reasonable land and lease costs have helped attract a large variety of businesses. There is also significant potential for facilities now occupied by warehouses to be converted to research and development or manufacturing facilities. Job growth in Hayward, which grew by 13 percent during the 1990s, is expected to continue, with a 34% increase anticipated by 2030 (Source: *ABAG Projections 2005*).

The Economic Development element of the General Plan includes strategies to encourage and support further economic growth, both in traditional facilities and in the new information-based economy. Many of these strategies are focused on the types of businesses that may have higher-than-average water usage, such as high technology and biotech facilities. For example, a specific goal is to “...attract and assist medium size firms in recognized growth sectors including retail trade and services and high-tech, biotech, and research and development firms (emphasis added)”. Because of the uncertainty regarding the precise types of businesses that will locate in the industrial sector during the planning period, the water demand projections include 400,000 gallons per day over and above normal expected additional industrial water use.

Hayward, like many Bay Area communities, experienced an economic downturn in the early part of this decade, resulting in the closure and reduced production of several major water-using businesses. The decrease in industrial water usage leading up to 2005 is a major contributor to the lower-than-anticipated water demand in 2005. Had demand progressed normally, the usage in 2005 would likely have been higher, and the change between 2005 and 2010 would have been less significant. However, reductions in water use due to changes in the economy are cyclical and occur from time and time, and water demand generally rebounds when the economy improves. Therefore, Hayward has prudently based future demand on normal economic conditions.

CURRENT AND FUTURE WATER DEMAND

Table 4-1 summarizes the anticipated number of accounts and projected water demand.

Table 4-1
Past, Current and Projected Water Demand (not including Water Conservation)

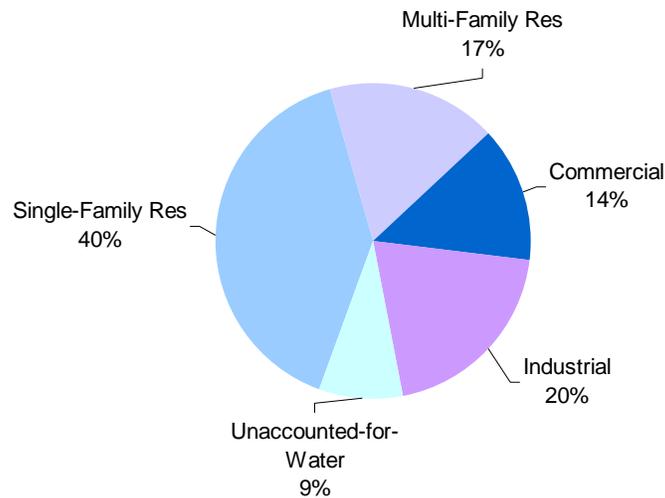
		2000	2005	2010	2015	2020	2025	2030
Single-Family	No. Accts	25,025	26,258	27,657	28,969	30,511	32,281	34,189
	AF/Year	7,436	8,856	9,157	9,914	10,771	11,722	12,731
	MG/Year	2,423	2,886	2,984	3,231	3,510	3,820	4,149
	Avg. MGD	6.7	7.9	8.2	8.9	9.6	10.5	11.4
Multi-Family	No. Accts	1,291	1,295	1,367	1,394	1,423	1,457	1,490
	AF/Year	4,514	3,839	4,573	4,519	4,493	4,499	4,545
	MG/Year	1,471	1,251	1,490	1,473	1,464	1,466	1,471
	Avg. MGD	4.0	3.4	4.1	4.0	4.0	4.0	4.0
Commercial/ Government	No. Accts	1,717	1,761	1,804	1,828	1,878	1,928	1,978
	AF/Year	3,391	3,032	4,012	4,171	4,545	4,935	5,330
	MG/Year	1,105	988	1,307	1,359	1,481	1,608	1,737
	Avg. MGD	3.0	2.7	3.5	3.7	4.1	4.4	4.8
Industrial	No. Accts	1,648	1,686	1,736	1,760	1,807	1,856	1,904
	AF/Year	4,278	4,450	4,861	5,097	5,589	6,093	6,598
	MG/Year	1,394	1,450	1,584	1,661	1,821	1,985	2,150
	Avg. MGD	3.8	4.0	4.3	4.5	5.0	5.4	6.0
Other (Metered Hydrant Use)	No. Accts	482	500	516	527	538	551	563
	AF/Year	273	40	80	82	84	86	88
	MG/Year	89	13	26	27	27	28	28
	Avg. MGD	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Additional Water Uses ⁽¹⁾	AF/Year	1,200	1,792	2,240	2,352	2,464	2,688	2,800
	MG/Year	391	584	730	766	803	876	858
	Avg. MGD	1.1	1.6	2.0	2.1	2.2	2.4	2.4
Total	No. Accts	30,163	31,500	33,080	34,478	36,157	38,073	40,125
	AF/Year	21,092	22,009	24,923	26,135	27,946	30,022	32,062
	MG/Year	6,873	7,172	8,121	8,516	9,106	9,783	10,447
	Avg. MGD	18.8	19.7	22.2	23.3	25.0	26.8	28.7

(1) Additional water uses include water used for hydrant flushing and fire suppression, as well as unaccounted for system losses. An average of 9 percent per year is included in Hayward's projections for future additional water uses and losses.

Sources: City of Hayward Water Consumption Records and SFPUC Wholesale Customer Water Demand Projections (URS November 2004)

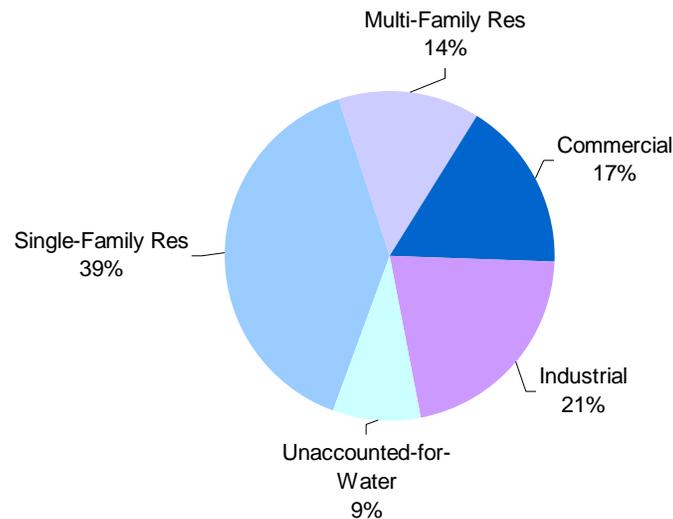
Current and future water use characteristics are illustrated in Figures 4-1 and 4-2. Figure 4-1 shows current (2005) water use among specific customer classifications. Residential water use currently makes up about 57% of total demand, whereas industrial and commercial usage comprises about 34% of the total.

Figure 4-1
Water Use by Customer Classification in 2005



The ratio between residential and non-residential is expected to adjust slightly during the planning period as more homes become outfitted with water-efficient appliances, so that by 2030, about 53% of the overall demand will be residential, 38% will be industrial/commercial usage, and the remainder is listed as unaccounted for.

Figure 4-2
Water Use by Customer Classification in 2030



SALES TO OTHER AGENCIES

Except for water delivered through the emergency interties established with East Bay Municipal Utility District and Alameda County Water District, the City of Hayward does not sell, transfer, or otherwise convey water to other water agencies.

ADDITIONAL WATER USES AND LOSSES

Additional water uses include water used for hydrant flushing and fire suppression, as well as unaccounted for system losses. An average of 9 percent per year is included in Hayward's projections for additional water uses and losses, which is consistent with recent experience. This average includes hydrant flushing, fire suppression and maintenance uses, which in other agencies may be categorized as "other," but which Hayward does not account for separately. Additional flushing is being performed due to the change from chlorine to chloramine as a disinfectant. Table 4-1 includes anticipated additional uses and system losses.

WATER CONSERVATION POTENTIAL

Cost effective demand management measures were evaluated, as part of the SFPUC demand study, to determine how much of Hayward's demand could potentially be met through water conservation. (Further information about Hayward water conservation program is provided in the Water Conservation chapter of the UWMP.) Water conservation measures will be implemented for all customer sectors. This amount was deducted from the water demand to arrive at the total projected water deliveries through 2030.

TOTAL PROJECTED WATER DELIVERIES

Table 4-2 totals projected water usage, including purchased water, system losses, and other uses, adjusted to account for the portion of demand that is expected to be met through water conservation.

Table 4-2

Total Projected Water Deliveries (including Water Conservation)

	2000	2005	2010	2015	2020	2025	2030
Acre-Feet/Year	21,092	22,009	24,419	25,539	27,331	29,236	31,252
Million Gallons/Year	6,873	7,172	7,957	8,322	8,906	9,526	10,183
Avg. Million Gallons/ Day	18.8	19.7	21.8	22.8	24.4	26.1	27.9

Source: SFPUC 2030 Purchase Estimates Technical Memorandum (URS December 2004). Confirmed in Hayward communication to SFPUC, April 6, 2005.

SUPPLY AND DEMAND COMPARISONS AND WATER SUPPLY RELIABILITY

This section describes the reliability of Hayward's water supply and its vulnerability to season and climatic shortages. Hayward distribution system is functioning reliably, and there are no groundwater recharge or overdraft problems. Under normal conditions, the City considers its water supply to be reliable.

The City of Hayward receives all of its water from the City and County of San Francisco's regional system, operated by the San Francisco Public Utilities Commission (SFPUC). This supply is predominantly from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local facilities in Alameda and San Mateo Counties.

In 1984, Hayward, along with 29 other Bay Area water suppliers signed a Settlement Agreement and Master Water Sales Contract with San Francisco. This contract, which expires in June 2009, provides for a 184 million gallon per day (mgd, expressed on an annual average basis) supply assurance to the SFPUC's wholesale customers collectively. The Master Contract defines the business relationship between SFPUC and wholesale customers on such issues as wholesale water rates and accounting methods. Hayward's water supply from SFPUC is based on a supply agreement signed by both agencies in 1962, which does not have an expiration date. This agreement provides Hayward with its needed water supply, as long as such supplies are within SFPUC ability to deliver and water supply conditions are normal. In effect, Hayward does not have a numerical limit on the amount of water that is provided by SFPUC, but Hayward has strived to keep water demands as low as possible through water conservation and demand management. This is reflected in the fact that Hayward's per capita water usage is currently among the lowest of SFPUC wholesale customers.

SUPPLY AND DEMAND IN NORMAL YEARS

Supply and Demand Comparisons

On April 6, 2005, Hayward provided the SFPUC with written demand projections. The SFPUC responded in writing on June 1, 2005 confirming it can meet Hayward's water demands in years of average and above average precipitation. Table 5-1 compares Hayward's projected supply and demand through 2030, assuming normal precipitation levels. The table indicates that adequate supplies are available to meet the demand.

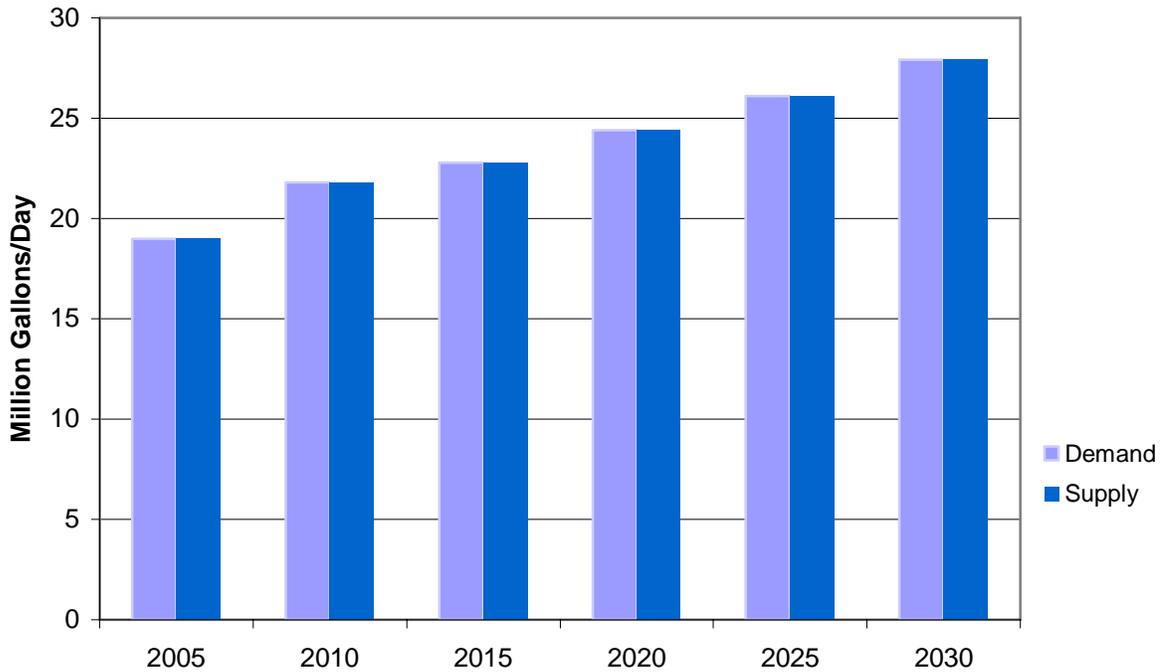
Table 5-1

Projected Normal Year Supply and Demand Comparisons – In Million Gallons/Day

	2005	2010	2015	2020	2025	2030
Demand	19.7	21.8	22.8	24.4	26.1	27.9
Supply	19.7	21.8	22.8	24.4	26.1	27.9
% Deficiency	0%	0%	0%	0%	0%	0%

Source: San Francisco Public Utilities Commission communication dated June 1, 2005

**Figure 5-1
Demand and Supply Comparison in Normal Years**



SUPPLY AND DEMAND IN DRY YEARS

Basis of Water Year Data

The SFPUC evaluated the reliability of the water supply, given the estimated system purchases for the years 2010 through 2030 and the expected performance of the water system based on a repeat of the historical hydrology from 1920 through 2002. For the purposes of this analysis, the SFPUC assumed that the historical hydrologic period is indicative of future events. For example, the analytical results for 2010 indicate that system-wide rationing, varying from 10 to 20%, would be implemented in 9 out of 82 years. Such a hydrological analysis is consistent with the SFPUC’s completed and ongoing planning efforts. The actual anticipated reduction for each agency receiving

water from SFPUC was based on the Interim Water Shortage Allocation Plan, described below.

Table 5-2
Basis of Water Year Data

Water Year Type	Base Year(s)	Historical Sequence
Normal Water Year	2004	
Single-Dry Water Year	1987	1920 - 2002
Multiple Dry Water Years	1987-1989	

Source: San Francisco Public Utilities Commission communication dated June 1, 2005

Interim Water Shortage Allocation Plan

The SFPUC has indicated that it can meet the demands of its retail and wholesale customers, including Hayward, in years of average and above-average precipitation. The Master Contract allows the SFPUC to reduce water deliveries to wholesale customers during periods of water shortage. Under the Master Contract, reductions to wholesale customers are to be based on each agency’s proportional purchases of water from the SFPUC during the year immediately preceding the onset of the shortage, unless this formula is supplanted by a water conservation plan agreed to by all parties.

There was concern that this default formula could discourage SFPUC’s wholesale customers from reducing purchases from SFPUC during periods of normal water supply. To overcome this problem, SFPUC and its wholesale customers adopted an Interim Water Shortage Allocation Plan (IWSAP) in 2000, which applies to water shortages up to 20 percent on a system-wide basis. The IWSAP will remain in effect through June 2009.

The IWSAP has two components. The Tier One component allocates water between San Francisco and the wholesale customers collectively, based on the level of shortage, as shown in Table 5-3.

Table 5-3
Allocation of Water Between San Francisco and Suburban Purchasers

Level of System-Wide Reduction in Water Use Required	Share of Available Water	
	SFPUC Share	Suburban Purchasers’ Share
5% or less	35.5%	64.5%
6% through 10%	36.0%	64.0%
11% through 15%	37.0%	63.0%
16% through 20%	37.5%	62.5%

Source: Interim Water Shortage Allocation Plan, 2000

The Tier Two component of the IWSAP allocates the collective wholesale customer share among each of the 28 wholesale agencies. This allocation is based on a formula that takes three factors into account, the first two of which are fixed: (1) each agency’s supply

assurance from SFPUC (with certain exceptions); and (2) each agency’s purchases from SFPUC during the three years preceding adoption of the IWSAP. The third factor is the agency’s rolling average of purchases of water from SFPUC during the three years immediately preceding the shortage.

The IWSAP allows for voluntary transfers of shortage allocations between SFPUC and any wholesale customer and between wholesale customers. Also, water “banked” by a wholesale customer, through reductions in use greater than required, may be transferred.

The IWSAP will expire in June 2009 unless extended by SFPUC and the wholesale customers. The amount of water which Hayward expects to receive from SFPUC during dry years has been calculated by SFPUC on the assumption that the IWSAP will be extended beyond 2009.

Minimum Supply During Next Three Years

Table 5-4 projects minimum water supplies available for the next immediate three-year period, as confirmed by SFPUC, based on 2003-04 purchases. In the first year, a 9% reduction would be expected, based on the current water supply portfolio. In the second and third years of a three-year drought sequence, system-wide reductions of up to 20% per year, with cutbacks in Hayward of up to 22% and 24% respectively.

***Table 5-4
Minimum Available Supply During Next Three Years – In Million Gallons/Day***

	Normal	Single Dry	Multiple Dry Water Years		
	Water Year	Water Year	Year 1	Year 2	Year 3
Demand ⁽¹⁾	19.6	19.6	19.6	20.0	20.4
Supply	19.6	17.8	17.8	15.5	15.5
Difference	0	0	1.8	4.5	4.9
% Deficiency	0%	9%	9%	22%	24%

(1) Interpolated from 2030 Purchase Estimates, SFPUC, 2004

Source: San Francisco Public Utilities Commission communication dated June 1, 2005

Supply and Demand Comparisons in a Single Dry Year

Table 5-5 compares the projected single-dry-year supply and demand over the next 25 years. SFPUC anticipates that in the event of one critically dry year, a system-wide reduction would not be necessary until 2030, assuming that the water supply portfolio described in Table 3-4 is available.

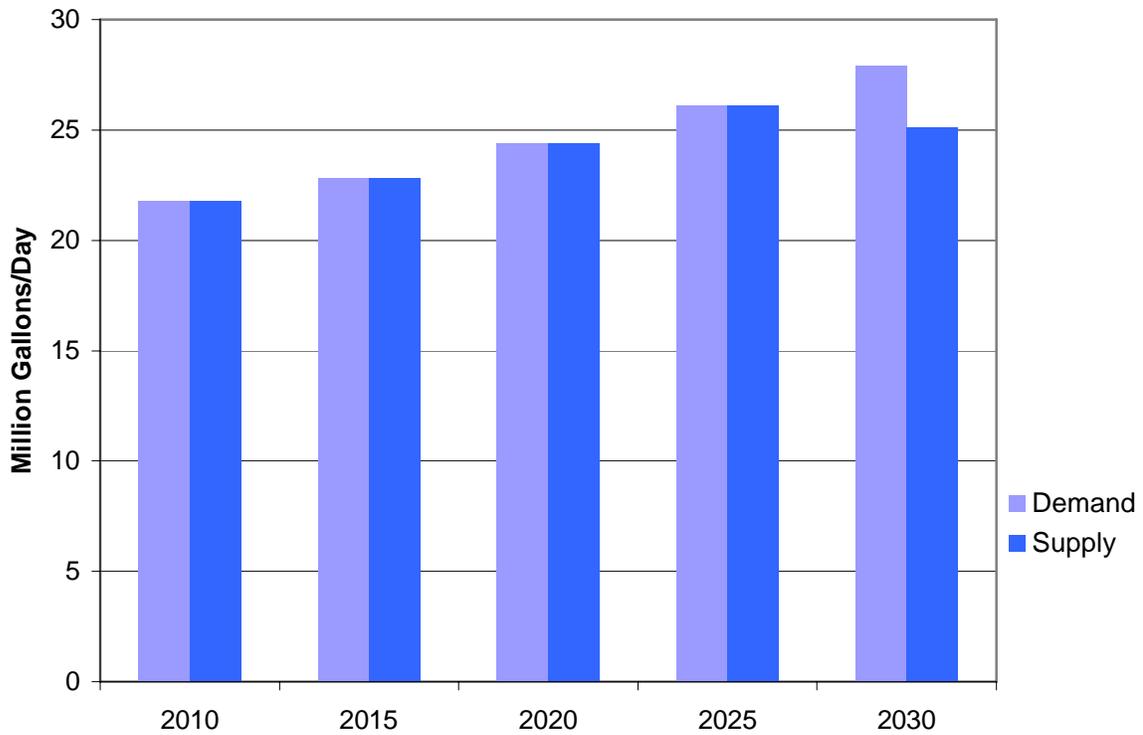
Table 5-5

Projected Single-Dry-Year Supply and Demand Comparison – In Million Gallons/Day

	2010	2015	2020	2025	2030
Demand	21.8	22.8	24.4	26.1	27.9
Supply	21.8	22.8	24.4	26.1	25.1
Difference	0.0	0.0	0.0	0.0	2.8
% Deficiency	0%	0%	0%	0%	10%

Source: San Francisco Public Utilities Commission communication dated June 1, 2005, except for 2030. The supply number in 2030 is higher than listed in the SFPUC communication and is based on a City of Hayward estimate assuming a 10% system-wide shortage.

Figure 5-2
Demand and Supply Comparison in Single Dry Year



Supply and Demand Comparison in Multiple Dry Years

Table 5-6 compares projected supply and demand during multiple dry years over the next 25 years. Between 2005 and 2010, a reduction in water usage of roughly 9% in the first dry year would be needed, as shown in Table 5-4. However, the additional planned storage, which is expected to be operational in 2010 and is summarized in Table 3-4 of the Water Supply Chapter, would provide sufficient supply to fully meet the first dry year demands beyond 2010, until 2030. In the second and third dry years, water supplies would not meet demand, and system-wide reductions of 10 to 20 percent would be needed. For Hayward, this would result in cutbacks ranging from 13% in 2010 to 22% in 2025.

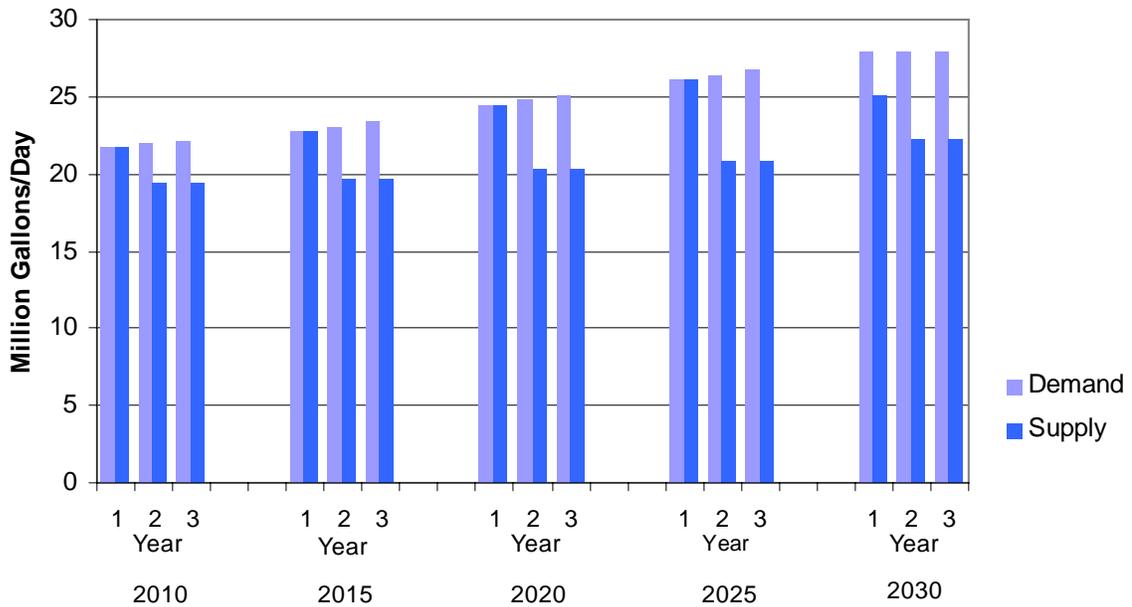
Table 5-6
Projected Multiple-Dry-Year Supply and Demand Comparison – In Million Gallons/Day

	2010	2015	2020	2025	2030
Multiple Dry Water Years - Year 1					
Demand	21.8	22.8	24.4	26.1	27.9
Supply	21.8	22.8	24.4	26.1	25.1
Difference	0.0	0.0	0.0	2.4	2.8
% Deficiency	0%	0%	0%	0%	10%
Multiple Dry Water Years - Year 2					
Demand ⁽¹⁾	22.0	23.1	24.8	26.4	27.9
Supply	19.4	19.7	20.3	20.9	22.3
Difference	2.6	3.4	4.5	5.5	5.6
% of Demand	12%	15%	18%	21%	20%
Multiple Dry Water Years - Year 3					
Demand ⁽¹⁾	22.2	23.4	25.1	26.8	27.9
Supply	19.4	19.7	20.3	20.9	22.3
Difference	2.8	3.7	4.8	5.9	5.6
% of Demand	13%	16%	19%	22%	20%

(1) Interpolated from 2030 Purchase Estimates, SFPUC, 2004

Source: San Francisco Public Utilities Commission communication dated June 1, 2005, except for 2030. The supply number in 2030 is higher than listed in the SFPUC communication and is based on a City of Hayward estimate assuming a 10% system-wide shortage in the first dry year and 20% system-wide shortages in the following two years.

**Figure 5-3
Supply and Demand Comparisons in Multiple Dry Years**



FACTORS RESULTING IN INCONSISTENCY OF SUPPLY

As noted previously, SFPUC can meet Hayward’s water usage needs in years of normal or above-normal precipitation. An inconsistent supply of water from SFPUC would generally result from climatic conditions, i.e., lower than normal levels of precipitation. On a short-term basis, shortages may also result from system maintenance. Supplies are not expected to be impacted by long-term shortages due to legal or environmental factors. As noted in Chapter 3 Water Supply and Distribution, a Program Environmental Impact Report is being prepared for the Water System Improvement Program and other project-specific environmental review may be required.

REPLACEMENT OF INCONSISTENT SUPPLIES

Water supplies are expected to be impacted by less-than-normal precipitation, resulting in reduced water supplies and rationing for a limited duration of time. Water supply shortages would be managed through rationing programs and increased demand management, as described in the Water Shortage Contingency Plan section of this document. Hayward currently has no plans to develop alternative sources, such as transfers, recycling, or desalination, to supplement water supplies.

WATER QUALITY IMPACTS ON RELIABILITY

Water supplies from the SFPUC Regional Water System, delivered from the Tuolumne River and local reservoirs, are of very high quality. The majority of the water supply originates in the upper Tuolumne River watershed, high in the Sierra Nevada and removed from human development pollution. Known as Hetch Hetchy water, this supply is conveyed to the Bay Area through a system of pipes and tunnels. The U.S. Environmental Protection Agency and the California Department of Health Services currently approves the use of this drinking water source without requiring filtration. Local water from the Alameda watershed, which provides a small amount of Hayward's water, requires filtration to meet drinking water quality standards. The filtered and treated water from the local watershed is blended with Hetch Hetchy water. Water quality is continuously monitored and tested to ensure that water delivered to customers meets or exceeds federal and state drinking water/public health standards.

The Water System Improvement Program, discussed in Chapter 3 Water Supply and Distribution, lists as one of its goals the ability to meet current and future water quality standards. It is anticipated that there will be no degradation of water quality in the future and that water quality issues will not impact current water management strategies or supply reliability.

WATER SHORTAGE CONTINGENCY PLAN

This section provides a water shortage contingency analysis to document the stages of action that have been and would be taken by the City of Hayward in response to water supply shortages.

STAGES OF ACTION

Hayward’s past experience with water shortages, most notably in 1977 and from 1987-1992, has shaped its current plans for managing such an event in the future. The following stages have been developed to respond to increasingly severe drought conditions and are triggered by water supplies.

*Table 6-1
Water Shortage Stages of Action*

Stage	Water Supply Conditions	% Shortage
I	<ul style="list-style-type: none"> • Single dry year • Supply is 90 to 99% of normal 	Up to 10%
II	<ul style="list-style-type: none"> • Critically dry year • Supply is 80 to 90% of normal 	10 – 20%
III	<ul style="list-style-type: none"> • Second dry year or critically dry year • Supply is 50 to 80% of normal • Loss of 20 to 50% of supply due to emergency 	20 – 50%
IV	<ul style="list-style-type: none"> • Supply is less than 50% of normal • Loss of 50% or more of supply due to emergency 	Over 50%

Source: City of Hayward

ESTIMATED MINIMUM SUPPLY FOR NEXT THREE YEARS

SFPUC has provided the following estimated minimum water supply available to Hayward during the next three years (2006 to 2008) based on the driest three-year historical sequence over an 82-year period.

*Table 6-2
Estimated Minimum Supply for the Next Three Years – In Million Gallons Per Day*

Source	Normal	2006	2007	2008
San Francisco Public Utilities Commission	19.59	17.82	15.49	15.49

Source: San Francisco Public Utilities Commission communication dated June 1, 2005

CATASTROPHIC WATER SUPPLY INTERRUPTION PLAN

The City of Hayward has taken significant steps to plan for and to supplement potable water supplies in the event of an interruption in regular water supplies, including interties with two neighboring water agencies and implementation of an emergency well system. One of the agencies with which Hayward shares interties (EBMUD) is fully independent of the SFPUC water supply; the other agency (ACWD) receives about 70% of its supply from sources other than SFPUC.

The following actions could be taken in the event of an interruption in water supplies due to a regional power outage, earthquake, or other disaster. The actual actions would depend on the severity of the disruption and the number of customers impacted.

- Notify customers of the need to limit water consumption. This could be by means of media contact, written notices to be posted in public places or hand-delivered and/or use of the City's emergency notification telephone system (Dialogic)
- Make contact with high-water-use businesses and other businesses through use of the "sensitive water users" list maintained by the City of Hayward
- Activate emergency interties, using emergency generators if necessary
- Activate emergency well system, using each well's emergency generator if necessary

Hayward has developed a comprehensive Water System Emergency Response Plan to incorporate all aspects of disaster planning into one document. The ERP utilizes the Standardized Emergency Management System (SEMS) to identify roles and responsibilities during an emergency. The ERP also includes instructions for communicating with SFPUC and other key agencies in the event of an emergency. In addition, Hayward is also a member of the Water Agency Response Network, a mutual aid agreement with water agencies throughout the State of California. The signatories may be called upon during an emergency to provide resources if they are available.

PROHIBITIONS, PENALTIES AND CONSUMPTION REDUCTION METHODS

Hayward's most recent experience with water supply shortages was during the state-wide drought of the early 1990s, in which Hayward customers reduced water use by 27%. The rationing program implemented was modeled on the very successful effort launched in 1977, in which Hayward customers reduced water usage by about 32%. It is expected that future rationing programs would follow this model, although changes could be incorporated to fit current conditions.

Expected Conservation Actions

The following list identifies specific conservation actions that Hayward customers are asked to take during a Stage I rationing effort. Hayward would implement a public information campaign to specifically address the situation.

- Avoid washing sidewalks, driveways, parking lots, buildings and other outdoors areas and structures
- Utilize a water recirculating system in ornamental fountains
- Repair broken or defective plumbing and irrigation systems
- Avoid use of hoses without a hose bib in washing vehicles
- Irrigate landscaping carefully to avoid overwatering
- Limit irrigation to early morning and evening hours to reduce evaporation
- Install water-saving devices
- Ensure full loads in dishwashers and clothes washing machines

Mandatory Prohibitions

Table 6-3 lists mandatory prohibitions during water shortages and the rationing stage at which the prohibition would become mandatory.

***Table 6-3
Water Use Prohibitions***

Prohibition	Stage When Prohibition Becomes Mandatory
Water use in excess of allocation (implement rate structure appropriate to the shortage)	Stage II (10% to 20% reduction)
Washing buildings, sidewalks, driveways, parking lots, and other outdoor areas	
Using defective plumbing and irrigation systems	
Filling or refilling swimming pools, spas or hot tubs	
Using water to fill or maintain water level in decorative fountain	
Serving water in restaurants (unless specifically asked by customer)	
Washing vehicles, except in commercial carwashes	
Using potable water in construction activities unless no other water is available	Stage III (20 to 50% reduction)
Continuation of all Stage II prohibitions	
Using potable water for cooling purposes and commercial car washes, unless recycled	
Using potable water for golf course irrigation	
Use of potable water for street sweeping	
Use of potable water to irrigate landscaping in new developments	

Source: City of Hayward draft ordinances and resolutions

Reductions Above 50%

In a Stage IV rationing effort, the City would intensify all of the prohibitions as listed in Table 6-3. Additional measures, such as limited watering days, would be added to achieve savings. The majority of additional savings would come from further reduced customer allocations.

Penalties for Excess Use

During the most recent drought, excess use charges for Hayward customers were implemented based on excess use charges applied to the City by SFPUC for water used in excess of Hayward's overall monthly allocations. SFPUC's excess use charges are set on a "graduated" basis, and Hayward has followed this same system with its own customers. Specifically, in 1991, excess water up to 10% over the allotment was billed at a higher rate per unit (hundred cubic feet), and an additional higher tier was implemented for excess water from 10% to 20% over the allotment. This scale, which matched that of SFPUC, provided sufficient deterrent. It is expected that a variation of this scale would be implemented during a future supply shortage. The exact amount would depend on SFPUC's excess use rate schedule and would be implemented during Stage II or III rationing.

REVENUE IMPACTS OF REDUCED SALES

Hayward's rate structure is based on a cost-of-service method where the beneficiaries of a service pay for the cost of providing the service, and where one customer class does not unduly subsidize another. The City has implemented a three-tier increasing block rate structure to promote water conservation, and reviews water rates annually to ensure adequate revenues to meet operating and capital expenses. A key factor in this review is anticipated consumption. A water shortage would be expected to result in lower consumption and reduced revenues. The reduced revenues would be mitigated in part by lower costs for purchasing water.

Hayward would also anticipate expending funds on the implementation of a water rationing program, including:

- Computer programming modifications to implement excess water usage fees
- Computer programming needed to determine appropriate customer allocations
- Advertising and public education materials
- Possible additional customer service staff to support rationing program

The rate structure, including excess use charges would be developed to achieve a revenue neutral impact to the extent possible. In the event that revenue was lower than expenditures, Hayward would rely upon the short-term use of reserves to offset the deficit. Also, some types of maintenance would be deferred, if such deferment would not

compromise water quality or service, and short-term cost efficiencies would be implemented to reduce the impact of reduced water sales.

USE MONITORING PROCEDURES

All water in Hayward is metered, including water used by the City government and other public agencies. All meters are read bi-monthly, and water bills are issued based on actual usage. Customer bills include usage data from the same time period the previous year, to enable customers to monitor their own water use. The utility billing system is capable of generating a variety of data for a given period of time, including consumption by customer type, meter size, and selected businesses. The City can also readily track water usage for large users such as the university, colleges, park district, City facilities, and certain large-use businesses. These reports would be used to determine customer use reductions.

The City also maintains a state-of-the-art Supervisory Control and Data Acquisition (SCADA) system to monitor the water distribution system. Water usage at various locations in the system can be tracked virtually hourly and reports can be generated to provide operating data and information. The SCADA can be used to determine reductions in water deliveries from SFPUC, consumption trends in various locations, and other useful monitoring data.

DRAFT WATER SHORTAGE RESOLUTIONS AND ORDINANCES

Appendix C contains samples of resolutions and ordinances that were adopted during the most recent drought in the early 1990s. It is anticipated that the City would use similar documents to implement future water shortage programs.

WATER RECYCLING

This section addresses Hayward’s current and future recycled water usage.

COORDINATION OF RECYCLED WATER PLANNING

The following agencies either participated in the developing a recycled plan for Hayward’s service area, or provided resources that were used to develop a plan:

*Table 7-1
Participating Agencies*

Agency	Role
San Francisco Public Utilities Commission	Prepared Wholesale Customer Recycled Water Potential Technical Memorandum
East Bay Dischargers Authority (EBDA)	Prepared Water Recycling Master Plan for member agencies (including Hayward) and assisted in projecting recycled water deliveries during the planning period
Bay Area Regional Water Recycling Program	Prepared a Bay Area water recycling program to identify potential regional and local projects
City of Hayward Water Pollution Control Facility	Provided information on treatment and disposal of wastewater, as well as projections regarding future wastewater flows

Source: City of Hayward

In 1993, EBDA prepared a Water Recycling Master Plan to investigate potential recycled water projects. The study focuses primarily on recycling applications within the service areas of Hayward and the unincorporated areas of Alameda County (Castro Valley and San Lorenzo). It is EBDA’s goal to maximize reuse of wastewater, and thus the study centered on potential recycling projects that have a good possibility of being implemented.

The Bay Area Regional Water Recycling Program (BARWRP), in which EBDA participates, developed a comprehensive regional Water Recycling Master Plan in 1998 to explore potential water recycling partnerships and regional projects. The City of Hayward, through EBDA, will continue to participate in this regional effort to expand the use of recycling water throughout the Bay Area and implement suitable projects when it is cost effective to do so.

The City of Hayward has included in the Sewer Improvement Fund of its Five-Year Capital Improvement Program a project to further study the feasibility of using recycled water. This study would build on and update the 1993 EBDA Master Plan, but with a focus more specifically on delivering effluent from the Hayward WPCF for use within Hayward.

WASTEWATER COLLECTION, TREATMENT AND DISPOSAL

The City of Hayward owns and operates the wastewater collection and treatment system that serves almost all of the residential, commercial, and industrial users within the incorporated City limits. The City also serves a small number of properties in unincorporated areas of Alameda County. A very small number of customers within the City limits are served by Oro Loma Sanitary District.

Wastewater Collection

The wastewater collection system is comprised of 375 miles of sewer mains, 9 sewage lift stations, and 2.5 miles of force mains.

Wastewater Treatment

The Water Pollution Control Facility (WPCF) is permitted to treat up to 16.5 mgd of wastewater with primary through advanced secondary treatment utilizing primary clarification, a high-rate trickling filter, and secondary clarification. The treated effluent is dechlorinated prior to discharge through a deepwater outfall into the San Francisco Bay. Following is a description of current treatment processes:

Headworks. Channel monsters reduce the size of solids in wastewater.

Vacuators. Wastewater flows through two vacuators where initial treatment strips oils, greases, and floatable materials out of the wastewater. These materials are pumped directly to an anaerobic digester.

Primary Sedimentation. Three primary clarifiers remove 60 percent of suspended solids, about 30 percent of the biochemical oxygen demand, and any remaining floatable materials.

Secondary Treatment. Dissolved solids and biochemical oxygen demand are converted into settleable biosolids in a fixed film reactor.

Secondary Sedimentation. A secondary clarifier removes any remaining settleable material, which is thickened with primary clarifier sludge and pumped into an anaerobic digester.

Sludge Handling. Sludge is anaerobically digested and deposited into drying beds to be air-dried. The dried sludge is then used as a soil amendment in a vegetative cover on top of a closed landfill or as alternative daily cover at an existing landfill site.

Gas Generation. Methane gas is a byproduct of sludge digestion. The gas generated at the Hayward WPCF is used to fuel the facility’s co-generation plant, which produces 40 percent of the facility’s electric needs, and except on rare occasions, all of the heat required for the digesters.

The City is embarking on a \$57 million WPCF Phase I Improvement project to improve the reliability and redundancy of the treatment processes. The project will consist of constructing a second trickling filter, two final (or secondary) clarifiers, a solids contact tank, and solids thickening facilities. It is expected that construction, which is currently underway, will be completed in 2008.

Table 7-2 tabulates the volume of collected and treated wastewater through the planning period.

Table 7-2
Wastewater Collected and Treated – In Acre-Feet/Year

	2000	2005	2010	2015	2020	2025
Quantity Collected/Treated	14,338	14,898	15,919	17,033	18,226	18,482
Quantity that Meets Recycled Water Standard ⁽¹⁾	14,338	14,898	15,919	17,033	18,226	18,482

Source: Water Pollution Control Facility Master Plan

⁽¹⁾ Secondary treatment levels

Wastewater Disposal

Hayward is a founding member of the East Bay Dischargers Authority (EBDA), a joint powers agency which disposes of treated wastewater through a large outfall to the San Francisco Bay. Effluent from the WPCF is disinfected with sodium hypochlorite and discharged into the East Bay Dischargers Authority (EBDA) system. The chlorine residual is removed prior to discharge to the San Francisco Bay.

Table 7-3 tabulates disposal of non-recycled wastewater.

Table 7-3
Disposal of Non-Recycled Water – in Acre-Feet/Year

	Treatment	2005	2010	2015	2020	2025
	Level					
Disposal to San Francisco Bay (through EBDA outfall) ⁽¹⁾	Secondary	11,246	12,729	13,413	14,572	14,716

Sources: Water Pollution Control Facility Master Plan and East Bay Dischargers Authority

⁽¹⁾ Total disposal in this table is comprised of the total wastewater treated less the recycled water use listed in Table 7-4. It must be noted that the recycled water totals in Table 7-4 are EBDA-wide totals, of which Hayward contributes a portion. It is difficult, however to segregate the amount of recycled water that is specifically diverted from Hayward.

CURRENT USES OF RECYCLED WATER

EBDA supplies the Skywest Golf Course with recycled water. The Hayward Area Recreation and Parks District (HARD) uses an average of about 160,000 gpd (180 acre-feet per year) to irrigate the 100-acre golf course, which was previously irrigated from a 250-foot well. EBDA also provides recycled wastewater to the Hayward marsh, which is operated jointly by EBDA, Union Sanitary District, and the East Bay Regional Parks District. The Marsh uses approximately 3.1 mgd from the EBDA pipeline. Various other uses within the service areas of EBDA’s member agencies divert an additional 380,000 gpd from EBDA discharge, but not necessarily including Hayward effluent.

Table 7-4 summarizes projected and actual 2005 recycled water use that includes Hayward effluent.

Table 7-4
Projected and Actual 2005 Recycled Water Use – In Acre-Feet/Year

Use	Treatment Level	2000 Projection of Recycled Water Use for 2005	2005 Actual Recycled Water Use
Landscape Irrigation	Secondary	226	180
Wetlands Enhancement	Secondary	2,964	3,475
Total		3,190	3,655

Source: East Bay Dischargers Authority

The overall use of recycled water in 2005 was slightly higher than projected in the 2000 UWMP due to additional water diverted to the Hayward marsh. Landscape irrigation water used at the Skywest Golf Course was slightly lower than anticipated because of cool temperatures and higher-than-normal precipitation during the spring months.

POTENTIAL USES OF RECYCLED WATER

Projects within the EBDA service area with the highest potential for recycled water use are identified in the table from the 1993 Water Recycling Master Plan and are included in Appendix D. Tables 7-5 and 7-6 summarize potential uses and quantities of recycled water in Hayward by project and by type of use. All of the projects require secondary treatment, except for California State University and Chabot College, which must be supplied with tertiary treated water due to the unrestricted nature of access to these properties.

Table 7-5
Current and Potential Recycled Water Projects – In Acre-Feet/Year

Name of Project	Type of Use	2005	2010	2015	2020	2025
Current Uses						
Skywest Golf Course	Landscape	180	180	180	180	180
Hayward Marsh	Wetlands	3,475	3,475	3,475	3,475	3,475
Potential Uses						
Hayward Airport	Landscape			430	430	430
Holy Sepulchre Cemetery	Landscape				31	31
Chapel of the Chimes	Landscape				3	3
Chabot College	Landscape					86
CSU	Landscape					26
Total		3,655	3,655	4,085	4,119	4,231

Source: Water Recycling Master Plan, East Bay Discharges Authority, 1993

Table 7-6
Current and Potential Uses of Recycled Water – In Acre-Feet/Year

Type of Use	Treatment Level	2005	2010	2015	2020	2025
Landscape Irrigation	Secondary	180	180	610	644	644
Landscape Irrigation	Tertiary	0	0	0	0	112
Wetlands	Secondary	3,475	3,475	3,475	3,475	3,475
Agriculture	N/A	0	0	0	0	0
Wildlife Habitat	N/A	0	0	0	0	0
Industrial	N/A	0	0	0	0	0
Groundwater Recharge	N/A	0	0	0	0	0
Total		3,655	3,655	4,085	4,119	4,231

Source: Water Recycling Master Plan, East Bay Discharges Authority, 1993

In addition to the projects identified in the EBDA Water Recycling Master Plan, there is potential for the City to deliver an average of 4.1 mgd (about 4,600 acre-feet/year) of

secondary treated wastewater to a proposed 600 megawatt combined cycle electric generating facility. The wastewater will be treated on the customer's site to tertiary standards and utilized for cooling water. The project, which requires a permit amendment based on a previously approved similar project, is currently in the early stages of development and is yet to be approved by the California Energy Commission. CEC approval may come in 2006, with construction to get underway in 2007.

The recycled water plan presented in the 2000 UWMP will likely be delayed due to cost factors and other priority projects, including a \$57 WPCF Phase I Improvement project to upgrade the wastewater treatment facility. The City had envisioned initiating recycled water delivery to the Hayward Executive Airport for irrigation purposes by 2010; however, this project has now been moved out to 2015 for planning purposes, partly due to the City's desire to revisit its recycled water master plan through a new feasibility study. The Master Plan that is now in place is more than ten years old, and in need of a thorough review before proceeding. Therefore, all projects defined in the 2000 UWMP have been moved out by five years and are subject to further change depending on the result of an updated study.

TECHNICAL AND ECONOMIC FEASIBILITY

The 1993 Water Recycling Master Plan identified recycling projects with a high water demand and a high probability of implementation. The feasibility of each potential project was evaluated using the following criteria:

- User Demand/Interest
- Acceptance by Public/Regulatory Agencies
- Required Level of Treatment
- Distribution/Storage Requirements
- Rough Scale Deliverable Water Costs

Rough scale deliverable water costs depend upon required treatment and on the distribution and storage facilities needed to implement the project. Ultimately the viability of a project comes down to the capital costs and acceptance by regulatory agencies and the public. At this time, irrigation projects, particularly on sites with restricted access, are the most cost effective and technically feasible.

Although irrigation demands tend to be seasonal, they involve large amounts of water, particularly in late spring and through the summer. Also, most of the irrigation projects identified in the Water Recycling Master Plan are in areas that have restricted public access and do not produce food products, and thus only secondary effluent is required. The other advantage of irrigation projects is that they typically do not require on-site storage facilities, so implementation costs are lower. The irrigation project that could be implemented in the next five to ten years is at the Hayward Executive Airport, a site that is managed by the City of Hayward. Two cemeteries in Hayward have also expressed

interest in using recycled water, but would likely take longer to implement. Two other potential irrigation projects—California State University campus and Chabot Community College—have unrestricted public access and would therefore need tertiary treated wastewater. These would be long-range projects because the construction and operating costs would be significantly higher. Irrigation of the West Winton Landfill, which is identified in the Master Plan as having high potential, will likely not be implemented for two reasons. First, the vegetative cover on the landfill is naturally growing (and dying) seasonal vegetation needing minimal water. Second, there is concern about the potential for seepage into the landfill and potential impact on groundwater.

Other uses are not feasible at this time. Groundwater recharge projects are not suitable in EBDA's service area for several reasons. First, injection wells would be needed to recharge the water table, and the cost of constructing and operating these treatment and injection facilities would be very high. Also, studies have shown that injected water can force salt water into potable water aquifers, depending on the aquifer configuration and location. Local water agencies that rely on the groundwater basins have indicated that they would have major concerns with introducing recycled water into groundwater sources.

Industrial users are particular about the quality of water they received and are concerned that the quality of recycled water would be lower and inconsistent. High tech manufacturing facilities, for example, depend upon very high quality water. One potential industrial use of recycled water is for dust control.

Finally, Hayward does not serve agricultural customers or wildlife habitat sites, with the exception of the Hayward Marsh, noted earlier.

In general, the cost of producing good, consistent quality wastewater and then delivering that wastewater to points of use is a major impediment to implementing water recycling projects at the local level.

ENCOURAGING RECYCLED WATER USE

EBDA adopted a Water Recycling Policy in 1991 to encourage use of recycled water whenever it is a suitable alternative to potable water. A copy of the policy, which is supported by the City of Hayward, is included in Appendix D. The EBDA policy specifically cites education programs to increase public awareness and acceptance of water recycling as critical to the implementation of future projects. To date, EBDA and the City have not offered financial incentives; however, both agencies will continue to work towards providing recycled water to interested users. At this time, the City has taken no action to require dual distribution systems.

Potential use of recycled water is summarized in Tables 7-5 and 7-6. If all potential projects are implemented by 2025, the estimated use of recycled EBDA wastewater would be about 3,766 acre-feet per year.

RECYCLED WATER OPTIMIZATION PLAN

EBDA's Water Recycling Policy, adopted in 1991, provides the framework for evaluating potential water recycling projects. The 1993 EBDA Water Recycling Master Plan, described earlier, serves as a guidance document to optimize the use of recycled water by identifying projects with a high potential for implementation, providing preliminary cost estimates, and discussing potential benefits and drawbacks of each application. Project analyses for each high potential application are included in Appendix D. Due to limited funding and varied locations, project implementation will need to be phased. In addition, public outreach and education efforts may be needed to address concerns about the safety of using recycled water for certain applications.

DEMAND MANAGEMENT

This section provides a description of Hayward's water conservation program, including the implementation status of various Best Management Practices (BMPs).

The City of Hayward is a signatory to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU). Appendix E includes copies of the 2003 and 2004 annual reports and coverage reports summarizing the City's implementation of BMPs and progress towards satisfying the coverage requirements of each BMP. The 2003 and 2004 annual reports are 100% complete per the CUWCC website.

The City of Hayward has one of the lowest per capita usages among agencies that purchase water from SFPUC. The demand study base year data (discussed in Chapter 4, Projected Water Demand) shows that Hayward's use is 61 gallons per capita per day (gpcd) in single-family homes and 54 gpcd in multi-family units. Nonetheless, Hayward has implemented a water conservation program to encourage further resource conservation.

IMPLEMENTATION OF DEMAND MANAGEMENT MEASURES

This section will address the demand management plan shown in the 2000 UWMP and discuss the current implementation status:

BMP 1 – Water Survey Programs for Single-Family and Multi-Family Residential Customers

The City has not yet implemented a formal residential survey program due to cost considerations. A program that combines residential surveys, residential plumbing retrofits, and school education is currently being explored for regional implementation by the Bay Area Water Supply and Conservation Agency (BAWSCA). The City will consider participation in this program once costs have been better defined.

BMP 2 – Residential Plumbing Retrofit

A very successful program was implemented in 1999, in which over 4,800 water conservation kits were distributed to residential customers. The kits included a high-quality showerhead, kitchen and bathroom faucet aerators, toilet tank displacement bags, and dye tablets. Additional kits may be distributed as part of a school education program being considered by BAWSCA (see discussion under BMPs 1 and 8).

BMP 3 – Water System Audits, Leak Detection, and Repair

The City is meeting coverage requirements for this BMP. Until this year, annual water audits did not indicate a need for a system-wide leak detection program. Based on the latest water audit, a project has been included in the 2005-06 five-year capital improvement program to implement a leak detection program to check the water distribution system.

BMP 4 – Metering with Commodity Rates

Hayward is meeting coverage requirements for this BMP. All water use in Hayward is metered.

BMP 5 – Large Landscape Conservation Programs and Incentives

This BMP has not yet been fully implemented due to cost. However, Hayward adopted a Water Efficient Landscape Ordinance over a decade ago to regulate the plant materials and irrigation systems installed in new developments. The Ordinance is administered by a licensed landscape architect on staff, who reviews and approves landscaping plans to ensure conformance with the provisions of the Ordinance.

BMP 6 – High Efficiency Washing Machine Program

The City is currently implementing this program as part of the Bay Area Efficient Clothes Washer Rebate Program and meeting coverage requirements.

BMP 7 – Public Information Program

The City is meeting the requirements for this BMP through distribution of written materials, participation in community events, billing inserts, and other means.

BMP 8 – School Education

Hayward has not yet implemented a comprehensive school education program. A program that combines residential surveys, residential plumbing retrofits, and school education is currently being explored for regional implementation by the Bay Area Water Supply and Conservation Agency (BAWSCA). The City will consider participation in this program once costs have been better defined.

BMP 9 – Commercial, Industrial and Institutional Water Conservation

Hayward is currently offering a pre-rinse spray valve program to install water conserving spray valves at food service facilities. Other commercial and industrial program will be offered in the future, most likely as part of a regional effort.

BMP 10 – Wholesale Agency Assistance Program

Not applicable to Hayward

BMP 11 – Conservation Pricing

Hayward is meeting the requirements for this BMP. A two-tiered rate structure was implemented in the early 1990s to encourage water conservation. A third tier was added in 2003. Hayward also offers reduced sewer service rates for water consumption of 0-5 units and 6-10 units during a billing period.

BMP 12 – Conservation Coordinator

Hayward is meeting the requirements for this BMP.

BMP 13 – Water Waste Prohibition

Hayward is meeting the requirements for this BMP through adoption of an ordinance to prohibit certain water wasting, non-essential activities.

BMP 14 – Ultra Low-Flow Toilet Replacement Program

The City has partially met the requirements for this BMP through a replacement rebate program that was offered for several years. However, replacement of toilets in single-family residential homes was shown to be cost ineffective due to natural replacement rates. A program to replace toilets in commercial and multi-family residential units is being explored by BAWSCA and will be considered for implementation in Hayward.

APPENDIX A

URBAN WATER MANAGEMENT PLANNING ACT

Established: AB 797, Klehs, 1983

Amended: AB 2661, Klehs, 1990

AB 11X, Filante, 1991

AB 1869, Speier, 1991

AB 892, Frazee, 1993

SB 1017, McCorquodale, 1994

AB 2853, Cortese, 1994

AB 1845, Cortese, 1995

SB 1011, Polanco, 1995

AB 2552, Bates, 2000

SB 553, Kelley, 2000

SB 610, Costa, 2001

AB 901, Daucher, 2001

SB 672, Machado, 2001

SB 1348, Brulte, 2002

SB 1384, Costa, 2002

SB 1518, Torlakson, 2002

AB 105, Wiggins, 2004

SB 318, Alpert, 2004

CALIFORNIA WATER CODE DIVISION 6 PART 2.6. URBAN WATER MANAGEMENT PLANNING

CHAPTER 1. GENERAL DECLARATION AND POLICY

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
- (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
- (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.
- (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in

its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.

- (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
- (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.
- (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.
- (8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.
- (9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

- (a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.
- (b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.
- (c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

CHAPTER 2. DEFINITIONS

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

CHAPTER 3. URBAN WATER MANAGEMENT PLANS

Article 1. General Provisions

10620.

- (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

- (b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.
- (c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.
- (d)
 - (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.
 - (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.
- (e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.
- (f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

10621.

- (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.
- (b) Every urban water supplier required to prepare a plan pursuant to this part shall notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.
- (c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

Article 2. Contents of Plans

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

- (a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.
- (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:
 - (1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.
 - (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

- (3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

- (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:
 - (1) An average water year.
 - (2) A single dry water year.
 - (3) Multiple dry water years.

For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

- (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.
- (e)
 - (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:
 - (A) Single-family residential.
 - (B) Multifamily.
 - (C) Commercial.
 - (D) Industrial.
 - (E) Institutional and governmental.
 - (F) Landscape.
 - (G) Sales to other agencies.
 - (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
 - (I) Agricultural.
 - (2) The water use projections shall be in the same five-year increments described in subdivision (a).

- (f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
- (1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:
 - (A) Water survey programs for single-family residential and multifamily residential customers.
 - (B) Residential plumbing retrofit.
 - (C) System water audits, leak detection, and repair.
 - (D) Metering with commodity rates for all new connections and retrofit of existing connections.
 - (E) Large landscape conservation programs and incentives.
 - (F) High-efficiency washing machine rebate programs.
 - (G) Public information programs.
 - (H) School education programs.
 - (I) Conservation programs for commercial, industrial, and institutional accounts.
 - (J) Wholesale agency programs.
 - (K) Conservation pricing.
 - (L) Water conservation coordinator.
 - (M) Water waste prohibition.
 - (N) Residential ultra-low-flush toilet replacement programs.
 - (2) A schedule of implementation for all water demand management measures proposed or described in the plan.
 - (3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

- (4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.
- (g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:
- (1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.
 - (2) Include a cost-benefit analysis, identifying total benefits and total costs.
 - (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.
 - (4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.
- (h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.
- (i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.
- (j) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council

in accordance with the “Memorandum of Understanding Regarding Urban Water Conservation in California,” dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

- (k) Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

10631.5. The department shall take into consideration whether the urban water supplier is implementing or scheduled for implementation, the water demand management activities that the urban water supplier identified in its urban water management plan, pursuant to Section 10631, in evaluating applications for grants and loans made available pursuant to Section 79163. The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities.

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

- (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.
- (b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.
- (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

- (d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.
- (e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.
- (f) Penalties or charges for excessive use, where applicable.
- (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.
- (h) A draft water shortage contingency resolution or ordinance.
- (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

- (a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.
- (b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
- (c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
- (d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement,

wetlands, industrial reuse, groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

- (e) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.
- (f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.
- (g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Article 2.5 Water Service Reliability

10635.

- (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.
- (b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

- (c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.
- (d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Article 3. Adoption and Implementation of Plans

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630).

The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644.

- (a) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

- (b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the outstanding elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

CHAPTER 4. MISCELLANEOUS PROVISIONS

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

- (a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.
- (b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public

Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

10657.

- (a) The department shall take into consideration whether the urban water supplier has submitted an updated urban water management plan that is consistent with Section 10631, as amended by the act that adds this section, in determining whether the urban water supplier is eligible for funds made available pursuant to any program administered by the department.
- (b) This section shall remain in effect only until January 1, 2006, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2006, deletes or extends that date.

APPENDIX B

ADOPTION RESOLUTION AND PUBLIC NOTICES

HAYWARD CITY COUNCIL

RESOLUTION NO. 05-148

Introduced by Council Member Jimenez

RESOLUTION ADOPTING THE 2005 URBAN WATER
MANAGEMENT PLAN FOR THE CITY OF HAYWARD

WHEREAS, the 1983 Urban Water Management Act, amended through 2004, requires all California urban water agencies that supply more than 3,000 acre feet per year of water or have more than 3,000 connections to prepare an Urban Water Management Plan (UWMP) every five years and the next UWMP must be adopted before the end of 2005; and

WHEREAS, locally, preparation of this document allows for a comprehensive and systematic review of water usage trends, projected water demand and supplies, water sources, and potential water reduction opportunities; and

WHEREAS, the City of Hayward has prepared an Urban Water Management Plan in compliance with provisions of the Urban Water Management Planning Act and in coordination with the City's wholesale water supplier; and

WHEREAS, the Director of Public Works has submitted to the City Council for review a copy of the draft Urban Water Management Plan and staff report dated December 6, 2005, and has made available for public review the 2005 UWMP in its entirety; and

WHEREAS, a public hearing was held on December 6, 2005, in the manner prescribed by law.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that the plan entitled "2005 Urban Water Management Plan," a copy of which is on file in the office of the Department of Public Works and the office of the City Clerk, is hereby adopted as the urban water management plan for the City of Hayward.

IN COUNCIL, HAYWARD, CALIFORNIA December 6, 2005

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS: Jimenez, Quirk, Halliday, Ward, Dowling
MAYOR: Cooper

NOES: COUNCIL MEMBERS: None
ABSTAIN: COUNCIL MEMBERS: None

ABSTAIN: COUNCIL MEMBERS: None

ABSENT: COUNCIL MEMBERS: Henson

ATTEST: Constance
City Clerk of the City of Hayward

APPROVED AS TO FORM:

Maria Conroy
City Attorney of the City of Hayward

Daily Review

c/o ANG Newspapers
22533 Foothill Blvd.
Hayward, CA 94541
Legal Advertising
(800) 595-9595 opt.4

CITY OF HAYWARD
777 B STREET
HAYWARD CA 94541

PROOF OF PUBLICATION

FILE NO.

In the matter of

NOTICE OF PUBLIC HEARING

The Daily Review

I am a citizen of the United States; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the Legal Advertising Clerk of the printer and publisher of The Daily Review, a newspaper published in the English language in the City of Hayward, County of Alameda, State of California.

I declare that the Daily Review is a newspaper of general circulation as defined by the laws of the State of California as determined by this court's decree, dated March 2, 1950, in the action entitled In the Matter of the Ascertainment and Establishment of the Standing of The Daily Review as a Newspaper of General Circulation, case number 221938. Said decree states that "'The Daily Review' has been established, printed, and published daily in the City of Hayward, County of Alameda, State of California, for one year or more next preceding the date of the filing of said petition; that it is a newspaper published for the dissemination of local and telegraphic news and intelligence of a general character and has a bona fide subscription list of paying subscribers; ... [] [and] THEREFORE, ... 'The Daily Review' is hereby determined and declared to be a newspaper of general circulation [within the meaning of Government Code §§ 6000 et seq.]" Said decree has not been revoked, vacated or set aside.

I declare that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

11/26/05, 12/3/05

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Hannah Seble

Public Notice Advertising Clerk

Legal No. 0000591994

NOTICE OF PUBLIC HEARING CITY OF HAYWARD CITY COUNCIL

DATE: December 6, 2005
TIME: 8:00 p.m.
PLACE: Hayward City Hall,
Council Chambers
777 B Street, 2nd Floor
Hayward, CA 94541

On the above date and approximately at the hour noted, Hayward City Council will obtain citizen input and consider approval of the following:

2005 Urban Water Management Plan

The Urban Water Management Plan is updated every five years. The Plan describes Hayward's water supply, anticipated water demand, water shortage contingency plans, and water conservation strategies. The community is encouraged to participate in the review process.

Copies of the draft 2005 Urban Water Management Plan are available for review from 8:00 a.m. to 5:00 p.m. in the Office of the City Clerk, 4th Floor of City Hall, 777 B Street, Hayward and at the Main Library and the Weekes Branch Library.

Persons interested in the above are invited to attend the meeting to speak or offer written evidence for or against approval of the proposed action. For additional information, contact:

Alex Ameri
City of Hayward
Department of Public Works
777 B Street, 4th Floor
Hayward, CA 94541
(510) 583-4720
alex.ameri@hayward-ca.gov

PLEASE TAKE NOTICE that if you file a lawsuit challenging any final decision on the subject of this notice, the issues in the lawsuit may be limited to the issues which were raised at the City's public hearing or presented in writing to the City Clerk at or before the public hearing. By Resolution the City Council has imposed the 90-day time deadline set forth in C.C.P. Section 1094.6 for filing of any lawsuit challenging final action on an item that is subject to C.C.P. Section 1094.5.

ASSISTANCE will be provided to those requiring accommodations for disabilities in compliance with the Americans with Disabilities Act of 1990. Persons needing accommodation should contact the City Clerk's Office 48 hours in advance of the meeting at (510) 583-4400, or by using the TDD line for those with speech and hearing disabilities at (510) 247-3340.

Dated: November 26 and
December 3, 2005
Angelina Reyes
City Clerk of the City of Hayward

The Daily Review, #591994
November 26,
December 3, 2005

APPENDIX C

WATER SUPPLY VERIFICATIONS
AND
SAMPLE WATER SHORTAGE
ORDINANCES AND RESOLUTIONS



CITY OF
HAYWARD
HEART OF THE BAY

April 6, 2005

Ms. Paula Kehoe
Manager of Water Resources Planning
San Francisco Public Utilities Commission
1145 Market Street, 4th Floor
San Francisco, CA 94103

Subject: Water Purchase Estimates

Dear Ms. Kehoe:

In response to your request of March 8, 2005, we are providing you with estimated water purchases from San Francisco Public Utilities Commission (SFPUC) through 2030, at five-year intervals.

The estimated purchases, million gallons per day (mgd), are:

2010	2015	2020	2025	2030
21.8 mgd	22.8 mgd	24.4 mgd	26.1 mgd	27.9 mgd

These estimates are consistent with the projections in the demand analysis that was prepared for SFPUC by Maddaus Water Management and the resulting December 2004 Purchase Estimates Technical Memorandum.

I understand that SFPUC will estimate the amount of water that can be provided to Hayward in each of these five-year intervals during normal and dry years and provide this information for our 2005 Urban Water Management Plan. Please contact Marilyn Mosher at (510) 583-4723 or marilyn.mosher@hayward-ca.gov if you have questions.

Sincerely,

Alex Ameri
Deputy Director of Public Works

cc: Nicole Sandkulla, Bay Area Water Supply and Conservation Agency

DEPARTMENT OF PUBLIC WORKS
UTILITIES ADMINISTRATION

777 B STREET, HAYWARD, CA 94541-5007

TEL 0/583-4700 • FAX: 510/583-3610 • TDD: 510/247-0

Table 1

Projected Hayward, City of Deliveries for Three Multiple Dry Years Given Year 2005 Purchase Request

	Purchase Request Year 2005 mgd	One Critical Dry Year	Current Deliveries during Multiple Dry Years in mgd		
			Year 1	Year 2	Year 3
System-Wide Shortage in Percent	0%	10%	10%	20%	20%
BAWSCA Allocation mgd	177.9	157.4	157.4	136.8	136.8
Hayward, City of	19.59	17.82	17.82	15.49	15.49

Table 2

UWMP Studies: Water Supply Reliability

Water Supply Options for Years 2010 through 2030

	2010	2015	2020	2025	2030
Crystal Springs Reservoir (22bg)	x	x	x	x	x
Westside Basin Groundwater afa	4,500	7,000	8,100	8,100	8,100
Calaveras Reservoir Recov. (31.5 bg)		x	x	x	x
Districts' Transfer afa	23,200	23,200	29,000	29,000	29,000

ORDINANCE NO. _____ C.S.

AN ORDINANCE ENACTED AS AN EMERGENCY MEASURE
ESTABLISHING RULES AND REGULATIONS FOR RATIONING
WATER DURING A WATER SHORTAGE EMERGENCY AND
ESTABLISHING PENALTIES FOR VIOLATIONS THEREOF

THE CITY COUNCIL OF THE CITY OF HAYWARD DOES ORDAIN AS
FOLLOWS:

Section 1. FINDINGS AND DETERMINATIONS.

- (a) A water shortage emergency condition prevails within the area served by the Hayward Water System.
- (b) The San Francisco Water Department, at the direction of the San Francisco Public Utilities Commission, has requested that all resale customers, including the Hayward Water System, immediately institute a water conservation program designed to effect a [TBD] percent reduction in water usage.
- (c) The rules, regulations and restrictions set forth in this ordinance are intended to conserve the water supply of the Hayward Water System for the greatest public benefit with particular regard to domestic use, sanitation and fire protection.
- (d) The specific uses prohibited or restricted by this ordinance are nonessential, if allowed, would constitute wastage of Hayward Water System water, and should be prohibited pursuant to the City of Hayward's general authority under its charter as well as the authority granted by State Water Code Section 350 et seq. and the common law.
- (e) The actions taken hereinafter are exempt from the provisions of Sections 21000 et seq. of the Public Resources Code as a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Code of Regulations Section 15269 (State CEQA Guidelines).
- (f) The following measures are therefore found to be necessary as an emergency measure for preserving the public peace, health or safety.

SECTION 2. DEFINITIONS.

- (a) The “Hayward Water System” is the Hayward Municipal Water System operated under Divisions of the City of Hayward Public Works Department.
- (b) “Director” is Director of Public Works of the City of Hayward.
- (c) “Person” means any person, firm, partnership association, corporation, company, organization or governmental entity.
- (d) “Customer” means any person, whether within or without the geographic boundaries of the City of Hayward, who uses water supplied by the Hayward Water System.
- (e) “Process Water” means water used to manufacture, alter, convert, clean, heat or cool a product, including water used in laundries and recycled car wash facilities.
- (f) “Unit of Water” is 100 cubic feet of water.
- (g) “Water” is water from the Hayward Water System.

Section 3. PROHIBITION OF NONESSENTIAL WATER USE. It shall be unlawful for any person to use water obtained from the Hayward Water System for nonessential uses as hereinafter defined.

Section 4. NONESSENTIAL USES DEFINED. The following uses of water are hereby determined to be nonessential, except as further provided herein:

- (a) Use of water in excess of those certain allotments set forth in Schedule A entitled “Allotment System For Water Use During Water Shortage Emergency” attached hereto and hereby made a part hereof.

Allotments as established herein shall be based on [Year TBD] use with adjustments for unusual conditions. New services or services without [Year TBD] history shall be allotted on comparable customer usage.

The City Council is hereby authorized from time to time to establish by resolution allotments different from the allotments set forth in said Schedule A due to changes in circumstances.

- (b) Use of water through any meter when the customer has been given 10 days written notice to repair broken or defective plumbing, sprinkler, watering or irrigation systems and has failed to effect such repairs.

- (c) Use of water which results in flooding or runoff in gutters or streets.
- (d) Use of water through a hand-held hose for washing cars, buses, boats, trailers or other vehicles, unless the hose is equipped with a positive shut-off nozzle.
- (e) Use of water through a hand-held hose for washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas.
- (f) Use of water for filling any existing or new swimming pool or hot tub.
- (g) Use of water to clean, fill or maintain levels in decorative fountains.
- (h) Use of water for construction purposes such as consolidation of backfill unless no other source of water or other method can be used.
- (i) Service of water by restaurants except upon the request of a customer.

Section 5. EXCEPTIONS. Written application for an exception or adjustment may be made to:

Hayward Water System
777 B Street
Hayward, California 94541-5007

The Director may (a) grant permits for the uses of water otherwise prohibited or (b) adjust the established allotments if it is found that:

- (1) To fail to do so would cause an emergency condition adversely affecting the health, sanitation, fire protection, or safety of the customer or the public, or adverse impacts such as loss of production or jobs; or
- (2) The customer has demonstrated to the Director's satisfaction that circumstances have changed warranting a change in the customer's allotment.

No permit shall be granted or allotment adjusted unless the customer has adopted all practicable water conservation measures and has demonstrated to the Director's satisfaction that there are no alternatives to the use of water from the Hayward Water System and that Hayward's water will be used efficiently and without waste.

The Director's denial of application for an exception or adjustments is final.

Section 6. EXCESS WATER USE CHARGE.

- (a) In addition to regular metered service charges under Section 11-2.38 of the Hayward Municipal Code, every consumer shall pay for each billing period an excess use charge for water delivered in excess of established allotments. This excess use charge shall be based upon a rate schedule as specified from time to time by resolution of the City Council.
- (b) The excess use charge shall not apply to any residential customer whose consumption is 1000 cubic feet or less per bi-monthly billing period.

Section 7. ENFORCEMENT.

- (a) **Installation of Flow-Restricting Devices:** In lieu of or in addition to the penalties provided for in Section 356 of the Water Code, the Hayward Water System may, after one written warning, install a flow-restricting device on the service line of any customer violating any of the provisions of this ordinance, including use of water in excess of the established allotments.
- (b) **Charges for Installation and Removal of Flow-Restricting Devices:** Charges for installation and removal of flow-restricting devices shall be based upon a rate schedule as specified from time to time by resolution of the City Council.
- (c) **Discontinuance of Water Service:** Continued water consumption in violation of the provisions of this ordinance may result in the discontinuance of water service by the Hayward Water System.

A charge shall be paid prior to reactivating a service which has been discontinued as provided herein. The charge shall be specified from time to time by resolution of the City Council.

Section 8. EFFECTIVE DATE. The findings and determinations set forth in Section 1. hereof constitute the statement of reasons for adopting this ordinance as an emergency measure in the manner provided by Section 617 of the Charter. This ordinance shall be effective immediately.

Section 9. OPERATIVE DATE. The requirements of this ordinance shall be operative as of [Date TBD].

INTRODUCED at a regular meeting of the City Council of the City of Hayward, held the [Date TBD], by Councilmember _____.

ORDINANCE NO. _____

AN ORDINANCE ENACTED TO ESTABLISH RULES AND REGULATIONS FOR INCREASED WATER RATIONING DURING A WATER SHORTAGE EMERGENCY AND ESTABLISHING PENALTIES FOR VIOLATIONS THEREOF

THE CITY COUNCIL OF THE CITY OF HAYWARD DOES ORDAIN AS FOLLOWS:

Section 1. Findings and Determinations.

- (a) A water shortage emergency condition prevails within the area served by the Hayward Water System.
- (b) On [Date TBD], the San Francisco Water Department, at the direction of the San Francisco Public Utilities Commission, requested that all resale customers, including the Hayward Water System, immediately institute a water conservation program designed to effect a [TBD] percent reduction in water usage.
- (c) Such action was taken by the City of Hayward's adoption of Ordinance No. [TBD] C.S.
- (d) On [Date TBD], the San Francisco Water Department, at the direction of the San Francisco Public Utilities Commission, recommended that all resale customers, including the Hayward Water System adopt additional water use restrictions to enhance their water conservation programs.
- (e) The rules, regulations and restrictions set forth in this ordinance are intended to conserve the water supply of the Hayward Water System for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection.
- (f) The specific uses prohibited or restricted by this ordinance are nonessential, if allowed, would constitute wastage of Hayward Water System water, and should be prohibited pursuant to the City of Hayward's general authority under its Charter as well as the authority granted by State Water Code sections 350 et seq. and the common law.
- (g) The actions taken hereinafter are exempt from the provisions of sections 21000 et seq. of the Public Resources Code as a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Administrative Code section 15071 (State of California Environmental Impact Report Guidelines).

- (h) The following measures are therefore found to be necessary as an emergency measure for preserving the public peace, health, and safety.

Section 1.5 Amended Program. This ordinance supersedes Ordinance No. [TBD] C.S.

Section 2. Definitions.

- (a) The “Hayward Water System” as operated under divisions of the City of Hayward Public Works Department.
- (b) “Director” is Director of Public Works of the City of Hayward.
- (c) “Person” means any person, firm, partnership, association, corporation, company, organization, or governmental entity.
- (d) “Customer” means any person, whether within or without the geographic boundaries of the City of Hayward, who uses water supplied by the Hayward Water System.
- (e) “Process Water” means water used to manufacture, alter, convert, clean, heat, or cool a product, including water used in laundries and recycled car wash facilities.
- (f) “Unit of water” is 100 cubic feet of water.
- (g) “Water” is water from the Hayward Water System.

Section 3. Prohibition of Nonessential Water Use. It shall be unlawful for any person to use water obtained from the Hayward Water System for nonessential uses as hereinafter defined.

Section 4. Nonessential Uses Defined. The following uses of water are hereby determined to be nonessential, except as further provided herein:

- (a) Use of water in excess of those certain allotments set forth in Schedule A entitled “Allotment System For Water Use During Water Shortage Emergency” attached hereto and hereby made a part hereof.

Allotments as established herein shall be based on [Year TBD] use with adjustments for unusual conditions. New services or services without [Year TBD] history shall be allotted on comparable customer usage.

The City Council is hereby authorized from time to time to establish by resolution allotments different from the allotments set forth in said Schedule A due to changes in circumstances.

- (b) Use of water through any meter when the person billed for the water service has been given 10 days written notice to repair broken or defective plumbing, sprinkler, watering, or irrigation systems and has failed to affect such repairs.
- (a) Use of water which results in flooding or runoff in gutter or streets.
- (d) Use of water through a hand-held hose for washing buildings, structures, mobile homes, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas.
- (e) Use of water for filling or refilling after draining of any existing or new swimming pool, spa, or hot tub; topping off will be allowed to the extent the designated allocation is not exceeded. Because it is necessary to fill a swimming pool as part of its construction process, building permits for new pools will not be issued during the current water shortage emergency.
- (f) Use of water to clean, fill, or maintain levels in decorative fountains.
- (g) Use of water for construction purposes such as consolidation of backfill unless no other source of water or other method can be used.
- (h) Service of water by restaurants except upon the request of a customer.
- (i) The washing of all vehicles, including but not limited to automobiles, motorcycles, RV's, trucks, transit vehicles, trailers, boats, trains, and airplanes, is prohibited outside of a commercial washing facility. Use of water through a hand-held hose in connection with the exceptions to this use restriction is prohibited unless the hose is equipped with a positive shut-off nozzle.
- (j) Verified water waste as determined by the Director will serve as prima facie evidence that the allocation assigned to the water account is excessive; therefore the allocation will be subject to review and possible reduction, including termination of service.
- (k) The use of recycled water and for all commercial car washes is strongly recommended.
- (l) The use of groundwater and/or reclaimed water for the irrigation of golf courses and similar turf areas is encouraged when approved by the Department of Public Health.
- (m) The enforcement of any contractual provision that requires the installation of landscaping requiring irrigation.

Nothing in this Section 4 restricts the use of groundwater and/or reclaimed water when otherwise lawful.

Section 5. Exceptions.

- (a) Written application for an exception or adjustment may be made to:

Hayward Water System
777 B Street
Hayward, California 94541-5007

- (b) After written application, the Director may grant permits for the uses of water otherwise prohibited or adjust the established allotments if the Director finds that:

- (1) The person billed for the water service has demonstrated that to do otherwise would cause an emergency condition adversely affecting the health, sanitation, fire protection, or safety of the person served or the public, or would result in loss of production or jobs; or
- (2) The person billed for the water service has demonstrated to the Director's satisfaction that circumstances have changed, warranting a change in the allotment.

No permit shall be granted or allotment adjusted unless the person billed for the service has adopted all practicable water conservation measures and has demonstrated to the Director's satisfaction that there are no alternatives to the use of water from the Hayward Water System and that Hayward's water will be used efficiently and without waste.

- (c) Upon the filing of a written request for an exception, the owner of a multiple residential development or a single-family household shall include a certification that the following water conservation efforts, at a minimum, have been implemented in every toilet and shower in the multiple residential development or single-family household:

- (1) All toilet tanks have been tested for leaks with leak detection dye tablets;
- (2) A two-quart plastic bag filled with water has been installed in all toilet tanks; and
- (3) An approved flow restrictor has been installed in every shower head.

In multiple residential unit developments served by a master meter where the owner does not own the units within the development, the owner shall provide certification under penalty of perjury that a kit containing the equipment for the above described water conservation efforts was delivered to every unit and each unit owner or occupant was urged to install the kits.

- (d) The Director's denial of an application for an exception or adjustments is final.
- (e) The following service charges or other charges approved from time to time by City Council resolution shall be applied to allotment changes:
 - (1) Temporary residents – a fee of [Fee TBD] for changing existing allotments;
 - (2) Adjustments to prior billings – a minimum fee of [Fee TBD] to adjust prior billings.

Section 6. Excess Water Use Charge.

- (a) In addition to regular metered service charges under Section 11-2.38 of the Hayward Municipal Code, every person billed for water service shall pay for each billing period an excess use charge for water delivered in excess of established allotments. This excess use charge shall be based upon a rate schedule as specified from time to time by resolution of the City Council.
- (b) The excess use charge shall not apply to any residential customer whose consumption is 1000 cubic feet or less per bi-monthly billing period.
- (c) In addition to the exception set forth in subsection (b) and notwithstanding any other provision of law, the Director of Public Works is authorized to adopt rules and regulations providing for waiver of excess use or other charges where their imposition would give rise to a civil right of action against the City by the person billed or would constitute a manifest and gross miscarriage of fairness and equity.

Section 7. Banking of Water Allocation. An unused portion of a customer's water allocation during a given billing period may be used in the next billing period to offset excess water usage in that period as provided in rules and regulations promulgated by the Director of Public Works in compliance with direction from the City Council.

Section 8. Enforcement and Penalties.

- (a) Installation of Flow-Restricting Devices: In lieu of or in addition to the penalties provided for in Section 356 of the Water Code, the Hayward Water System may, after one written warning, install a flow-restricting device on the service line of any customer violating any of the provisions of this ordinance, including use of water in excess of the established allotments.
- (b) Charges for Installation and Removal of Flow-Restricting Devices: Charges for installation and removal of flow-restricting devices shall be based upon a rate schedule as specified from time to time by resolution of the City Council.
- (c) Reduction or Discontinuance of Water Service: Verified water waste consisting of continued water consumption in violation of the provisions of this ordinance will serve as prima facie evidence that the allotment to the water account is excessive and may result in the reduction or discontinuance of water service by the Hayward Water System.

A charge shall be paid prior to reactivating a service which has been discontinued as provided herein. The charge shall be specified from time to time by resolution of the City Council.

- (d) Any person or customer violating or failing to comply with the provisions of this ordinance or any code or regulation adopted by reference shall constitute an infraction. Upon conviction of an infraction, a violator shall be subject to payment of a fine, not to exceed the limits set forth in California Government Code section 36900. After a third conviction for a violation of the same provision, subsequent violations within a twelve-month period may be charged as a misdemeanor. Upon conviction of a misdemeanor, a violator shall be subject to payment of a fine or imprisonment, or both, not to exceed the limits set forth in California Government Code section 36901.
- (e) Each violator shall be guilty of a separate offense for each and every day during any portion of which any violation of any provision of this ordinance or of any code or regulation adopted by reference is committed, continued, or permitted by such person, and such person shall be punished accordingly.
- (f) Whenever this ordinance or any code or regulation adopted by reference makes any act or omission unlawful, it shall include causing, permitted, aiding, abetting, suffering, or concealing the fact of such act or omission.

- (g) Any violation of this ordinance or of any code or regulation adopted by reference shall constitute a public nuisance. In addition to any other remedies provided in this ordinance, the City may summarily abate such nuisance and may bring a civil suit to enjoin or abate the violation.
- (h) The remedies provided for herein shall be cumulative and not exclusive.
- (i) In addition to the punishment provided by law, a violator convicted of a misdemeanor or an infraction shall be liable for such costs, expenses, or disbursements paid or incurred by the City or any of its contractors in connection with the abatement or prosecution of the violation.

Section 9. Severability. If any provision of this ordinance is held by any court or by any federal, state, or local agency of competent jurisdiction to be invalid, then said provision shall be considered a separate, distinct, and independent part of this ordinance, and such holding shall not affect the validity and enforceability of all other provisions hereof.

Section 10. Operative Date. The requirements of this ordinance shall be operative as of _____, 2005.

INTRODUCED at a regular meeting of the City Council of the City of Hayward, held the [Date TBD], by Councilmember _____.

ORDINANCE NO. _____

AN ORDINANCE ENACTED AS AN EMERGENCY MEASURE
TO ESTABLISH RULES AND REGULATIONS FOR
INCREASED WATER RATIONING DURING A WATER
SHORTAGE EMERGENCY AND ESTABLISHING
PENALTIES FOR VIOLATIONS THEREOF

THE CITY COUNCIL OF THE CITY OF HAYWARD DOES ORDAIN AS
FOLLOWS:

Section 1. Findings and Determinations.

- (a) A water shortage emergency condition prevails within the area served by the Hayward Water System.
- (b) On [Date TBD], the San Francisco Water Department, at the direction of the San Francisco Public Utilities Commission, requested that all resale customers, including the Hayward Water System, immediately institute a water conservation program designed to effect a [TBD] percent reduction in water usage.
- (c) Such action was taken by the City of Hayward's adoption of Ordinance No. [TBD] C.S.
- (d) The severity of the water shortage has prompted the Governor of the State of California to call upon all communities to adopt water rationing plans to effect a 50 percent reduction in water usage.
- (e) On [Date TBD], the San Francisco Water Department, at the direction of the San Francisco Public Utilities Commission, requested that all resale customers, including the Hayward Water System, immediately increase water conservation programs to effect a 50 percent reduction in water usage.
- (f) The rules, regulations and restrictions set forth in this ordinance are intended to conserve the water supply of the Hayward Water System for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection.
- (g) The specific uses prohibited or restricted by this ordinance are nonessential, if allowed, would constitute wastage of Hayward Water system water, and should be prohibited pursuant to the City of Hayward's general authority under its Charter as well as the authority granted by State Water Code sections 350 et seq. and the common law.

- (h) The actions taken hereinafter are exempt from the provisions of sections 21000 et seq. of the Public Resources Code as a project undertaken as immediate action necessary to prevent or mitigate an emergency pursuant to Title 14, California Administrative Code section 15071 (State of California Environmental Impact Report Guidelines).
- (i) The following measures are therefore found to be necessary as an emergency measure for preserving the public peace, health, and safety.

Section 1.5 Amended Program. This ordinance supersedes Ordinance No. [TBD] C.S.

Section 2. Definitions.

- (a) The “Hayward Water System” as operated under divisions of the City of Hayward Public Works Department.
- (b) “Director” is Director of Public Works of the City of Hayward.
- (c) “Person” means any person, firm, partnership, association, corporation, company, organization, or governmental entity.
- (d) “Customer” means any person, whether within or without the geographic boundaries of the City of Hayward, who uses water supplied by the Hayward Water System.
- (e) “Process Water” means water used to manufacture, alter, convert, clean, heat, or cool a product, including water used in laundries and recycled car wash facilities.
- (f) “Unit of Water” is 100 cubic feet of water.
- (g) “Water” is water from the Hayward Water System.

Section 3. Prohibition of Nonessential Water Use. It shall be unlawful for any person to use water obtained from the Hayward Water System for nonessential uses as hereinafter defined.

Section 4. Nonessential Uses Defined. The following uses of water are hereby determined to be nonessential, except as further provided herein:

- (a) Use of water in excess of those certain allotments set forth in Schedule A entitled “Allotment System for Water Use During Water Shortage Emergency” attached hereto and hereby made a part hereof.

Allotments as established herein shall be based on [Year TBD] use with adjustments for unusual conditions. New services or services without [Year TBD] history shall be allotted on comparable customer usage.

The City Council is hereby authorized from time to time to establish by resolution allotments different from the allotments set forth in said Schedule A due to changes in circumstances.

- (b) Use of water through any meter when the person billed for the water service has been given 10 days written notice to repair broken or defective plumbing, sprinkler, watering, or irrigation systems and has failed to affect such repairs.
- (c) Use of water which results in flooding or runoff in gutters or streets.
- (d) Use of water through a hand-held hose for washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas.
- (e) Use of water for filling or refilling after draining or any existing or new swimming pool, spa, or hot tub; topping off will be allowed to the extent the designated allocation is not exceeded. Because it is necessary to fill a swimming pool as part of its construction process, building permits for new pools will not be issued during the current water shortage emergency.
- (f) Use of water to clean, fill, or maintain levels in decorative fountains.
- (g) Use of water for construction purposes such as consolidation of backfill unless no other source of water or other method can be used.
- (h) Service of water by restaurants except upon the request of a customer.
- (i) The washing of all vehicles, including but not limited to automobiles, motorcycles, RV's, trucks, transit vehicles, trailers, boats, trains, and airplanes, is prohibited outside of a commercial washing facility. Notwithstanding the foregoing, the following exceptions apply to this use restriction: washing windows on all vehicles and the use of water to clean commercial or safety vehicles requiring cleaning for health or safety reasons (e.g. garbage trucks, food delivery vehicles, ambulances, etc.). Use of water through a hand-held hose in connection with the exceptions to this use restriction is prohibited unless the hose is equipped with a positive shut-off nozzle.
- (j) Water used for all cooling purposes and for commercial car washes unless it is recycled.

- (k) The use of potable water on golf courses except for the irrigation of putting greens.
- (l) The use of potable water for street sweepers/washers is prohibited.
- (m) Notwithstanding contractual or statutory language to the contrary, the use of potable water to irrigate any landscaped areas in developments approved after the effective date of this ordinance. Water meters serving landscaped areas requiring irrigation will not be installed during the current water shortage.
- (n) The enforcement of any contractual or statutory provision that requires the installation of landscaping requiring irrigation.

Nothing in this Section 4 restricts the use of groundwater and/or reclaimed water when otherwise lawful.

Section 5. Exceptions. Written application for an exception or adjustment may be made to:

Hayward Water System
777 B Street
Hayward, California 94541-5007

After written application, the Director may grant permits for the uses of water otherwise prohibited or adjust the established allotments if the Director finds that:

- (a) The person billed for the water service has demonstrated that to do otherwise would cause an emergency condition adversely affecting the health, sanitation, fire protection or safety of the person served or the public, or would result in loss of production or jobs; or
- (b) The person billed for the water service has demonstrated to the Director's satisfaction that circumstances have changed, warranting a change in the allotment; or
- (c) The person billed for the water service has demonstrated to the Director's satisfaction that an adjustment in the allotment based upon 60 gallons per day per person in a single-family household or 150 gallons per day in a multifamily living unit is warranted.

No permit shall be granted or allotment adjusted unless the person billed for the service has adopted all practicable water conservation measures and has demonstrated to the Director's satisfaction that there are no alternatives to the use of water from the Hayward Water System and that Hayward's water will be used efficiently and without waste.

Upon the filing of a written request for an exception, the owner of a multiple residential development or a single-family household shall include a certification that the following water conservation efforts, at a minimum, have been implemented in every toilet and shower in the multiple residential development or single-family household:

- (a) All toilet tanks have been tested for leaks with leak detection dye tablets;
- (b) A two-quart plastic bag filled with water has been installed in all toilet tanks; and
- (c) An approved flow restrictor has been installed in every shower head.

In multiple residential unit developments served by a master meter where the owner does not own the units within the development, the owner shall provide certification under penalty of perjury that a kit containing the equipment for the above described water conservation efforts was delivered to every unit and each unit owner or occupant was urged to install the kits.

The Director's denial of an application for an exception or adjustments is final.

The following service charges or other charges approved from time to time by City Council resolution shall be applied to allotment changes:

- (a) Temporary residents – a fee of [Fee TBD] for changing existing allotments;
- (b) Adjustments to prior billings – a minimum fee of [Fee TBD] to adjust prior billings.

Section 6. Excess Water Use Charge.

- (a) In addition to regular metered service charges under Section 11-2.38 of the Hayward Municipal Code, every person billed for water service shall pay for each billing period an excess use charge for water delivered in excess of established allotments. This excess use charge shall be based upon a rate schedule as specified from time to time by resolution of the City Council.
- (b) The excess use charge shall not apply to any residential customer whose consumption is 1000 cubic feet or less per bi-monthly billing period.

Section 7. Enforcement

- (a) Installation of Flow-Restricting Devices: In lieu of or in addition to the penalties provided for in Section 356 of the Water Code, the Hayward Water System may, after one written warning, install a flow-restricting device on the service line of any customer violating any of the provisions of this ordinance, including use of water in excess of the established allotments.
- (b) Charges for Installation and Removal of Flow-Restricting Devices: Charges for installation and removal of flow-restricting devices shall be based upon a rate schedule as specified from time to time by resolution of the City Council.
- (c) Reduction or Discontinuance of Water Service: Verified water waste consisting of continued water consumption in violation of the provisions of this ordinance will serve as prima facie evidence that the allotment to the water account is excessive and may result in the reduction or discontinuance of water service by the Hayward Water System.

A charge shall be paid prior to reactivating a service which has been discontinued as provided herein. The charge shall be specified from time to time by resolution of the City Council.

Section 8. Effective Date. The findings and determinations set forth in Section 1 hereof constitute the statement of reasons for adopting this ordinance as an emergency measure in the manner provided by section 617 of the Charter. This ordinance shall be effective immediately.

Section 9. Operative Date. The requirements of this ordinance shall be operative as of [Date TBD].

INTRODUCED at a regular meeting of the City Council of the City of Hayward, held the [Date TBD], by Councilmember _____.

HAYWARD CITY COUNCIL

RESOLUTION NO. _____

Introduced by Councilmember _____

RESOLUTION ESTABLISHING EXCESS WATER USE CHARGES AND ENFORCEMENT CHARGES FOR RATIONING WATER DURING A WATER SHORTAGE EMERGENCY

WHEREAS, by Ordinance No. [TBD] C.S. the City Council adopted an emergency ordinance establishing rules and regulations operative [Date TBD], for water rationing during the current water emergency; and

WHEREAS, excess water use charges and enforcement charges shall be based upon rate schedules specified from time to time by resolution of the City Council.

NOW, THEREFORE, be it resolved by the City Council of the City of Hayward that said Council does hereby adopt the following charges:

Section 1. In addition to regular meter service charges, charges based upon the amount of water supplied and surcharges under Section 11-2.38 of the Hayward Municipal Code, the following amounts will be charged for water delivered in excess of established allotments.

EXCESS USE CHARGES IN ADDITION TO ALL OTHER WATER CHARGES FOR ALL HAYWARD WATER CUSTOMERS

<u>Excess Use Range</u>	<u>Percent of Water Used In Excess of Allotment</u>	<u>Excess Use Charge per 100 Cubic Feet for all Water Used in Excess of Allotment</u>
A	0% to 10% over allotment	
B	10.01% to 20% over allotment	Charges TBD
C	Over 20.01% over allotment	

Section 2. In accordance with Section 7 of Ordinance No. [TBD] C.S. the following charges shall be established for enforcement purposes:

- (a) Charges for installation and removal of flow-restricting devices shall be as follows:

<u>Meter Size</u>	<u>Installation Charge</u>	<u>Removal Charge</u>
5/8" to 1"		
1-1/2" and 2"	Charges TBD	

- (b) A charge of [Charge TBD] shall be paid prior to reactivating a service which has been discontinued as provided in Ordinance No. [TBD] C.S.

IN COUNCIL HAYWARD, CALIF. _____,

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCILMEMBERS:

MAYOR:

NOES: COUNCILMEMBERS:

ABSENT: COUNCILMEMBERS:

ATTEST: _____

City Clerk of the City of Hayward

SCHEDULE A

ALLOTMENT SYSTEM FOR WATER USE DURING
WATER SHORTAGE EMERGENCY

SINGLE FAMILY RESIDENTIAL UNITS:

Allotments to provide for a minimum overall decrease of 50% of [Year TBD] use.
(Table 1.)

<u>BI-MONTHLY BILLING-in CCF</u>	<u>% REDUCTION</u>
0 to 10	None.
11 to 40	Sliding scale from 5% to 50%.
All use over 40	90% all over 40

MULTIPLE RESIDENTIAL UNITS:

<u>DESCRIPTION</u>	<u>REDUCTION</u>
Domestic with irrigation water	50%
Domestic without irrigation water	20%
Irrigation Only Services	90%

COMMERCIAL AND INDUSTRIAL:

<u>DESCRIPTION</u>	<u>REDUCTION</u>
Process Water	20%
Domestic Water	50%
Irrigation Only Services	90%

GOVERNMENTAL:

Domestic Water	50%
Irrigation Services	90%

CONSTRUCTION SERVICES:

Allowed by permit only. ---
Water from other sources will be used where available.

**TABLE 1
WATER RATIONING ORDINANCE
RESIDENTIAL SLIDING SCALE**

Use in Base Year			Allotment			
<u>Billing Cubic Ft.</u>	<u>Gallons</u>	<u>GPD (60 days)</u>	<u>Billing Cubic Feet</u>	<u>Gallons</u>	<u>GPD (60 days)</u>	<u>Percent Reduction</u>
100	748	12	100	748	12	0%
200	1496	25	200	1496	25	0%
300	2244	37	300	2244	37	0%
400	2992	50	400	2992	50	0%
500	3740	62	500	3740	62	0%
600	4488	75	600	4488	75	0%
700	5236	87	700	5236	87	0%
800	5984	100	800	5984	100	0%
900	6732	112	900	6732	112	0%
1000	7480	125	1000	7480	125	0%
1100	8228	137	1033	7727	129	6%
1200	8976	150	1066	7974	133	11%
1300	9724	162	1099	8221	137	15%
1400	10472	175	1132	8467	141	19%
1500	11220	187	1165	8714	145	22%
1600	11968	199	1198	8961	149	25%
1700	12716	212	1231	9208	153	28%
1800	13464	224	1264	9455	158	30%
1900	14212	237	1297	9702	162	32%
2000	14960	249	1330	9948	166	34%
2100	15708	262	1363	10195	170	5%
2200	16456	274	1396	10442	174	37%
2300	17204	287	1429	10689	178	38%
2400	17952	299	1462	10936	182	39%
2500	18700	312	1495	11183	186	40%
2600	19448	324	1528	11429	190	41%
2700	20196	337	1561	11676	195	42%
2800	20944	349	1594	11923	199	43%
2900	21692	362	1627	12170	203	44%
3000	22440	374	1660	12417	207	45%
3100	23188	386	1693	12664	211	45%
3200	23936	399	1726	12910	215	46%
3300	24684	411	1759	13157	219	47%
3400	25432	424	1792	13404	223	47%
3500	26180	436	1825	13651	228	48%
3600	26928	449	1858	13898	232	48%
3700	27676	461	1891	14145	236	49%
3800	28424	474	1924	14392	240	49%
3900	29172	486	1957	14638	244	50%
4000	29920	499	1990	14885	248	50%

All water use over 40 units will be reduced by 90 percent

1 cubic foot + 7.48 gallons
100 cubic foot (CCF) = 748 gallons

APPENDIX D

RECYCLED WATER POLICY AND POTENTIAL RECYCLED WATER PROJECT DESCRIPTIONS

EAST BAY DISCHARGERS AUTHORITY

WATER RECYCLING POLICY

ADOPTED FEBRUARY 21, 1991

The East Bay Dischargers Authority hereby establishes a formal policy in support of the use of recycled (reclaimed) water whenever it is a suitable alternative to the use of potable water. The Authority recognizes the potential role of recycled water in extending the potable water supply for the public, agriculture, business, and industry, now and in the future, for uses consistent with Title 22 regulations and local conditions. The Authority acknowledges that the approval of specific projects are subject to the provisions of the Second Amended Joint Powers Agreement, dated February 11, 1986.

The Authority shall support the following types of reuse of recycled water:

- A. Agricultural Irrigation including both food and non-food crops such as pasture, orchards, vineyards, nursery, and sod crops.
- B. Landscape Irrigation including parks, playgrounds, golf courses, roadside and highway landscaping, cemeteries, and other areas.
- C. Industrial Uses such as for process water and cooling, washdown water, soil compaction and dust control at construction sites.
- D. Groundwater Recharge by injection into aquifers through wells for the prevention of seawater intrusion, or by percolation into aquifers from spreading basins for eventual potable water uses.
- E. Recreational Impoundments to maintain landscape impoundments, recreational lakes, and duck club ponds. The impoundments may be restricted or nonrestricted depending of the class of the recycled water, and the potential for human contact.
- F. Wildlife Habitat Enhancement including the development and maintenance of wetlands and marshes.
- G. Dual Water Systems including dual piping in all approved locations to allow recycled water use for toilet flushing and landscape irrigation. Systems could be newly created or retrofitted depending on need and economic factors.
- H. Other uses that take advantage of changing technology and are not specifically identified above.

RESPONSIBILITIES

It shall be the responsibility of both the Authority and the Member Agencies to pursue feasible uses for water recycling. Either the Authority or the member agency can take the lead EBDA role on any new project on a case by case basis. Some of the factors that may determine the lead agency include: available staff time, relationship with potable water agency, source of recycled water, and recycled water contracting agency. The source of the recycled water may come from the EBDA pipeline or directly from the effluent of one of the treatment plants. The overall lead role may be the local water district, the Authority, or a member agency.

Implementation of recycling projects requires the involvement, approval, and support of many agencies, including state and local health departments, the Regional Water Quality Control Board, and the local water districts. The development of Memoranda of Understanding with all such parties shall be encouraged.

At all times the Authority and the member agencies will keep all parties informed through regular communication at the monthly Managers Advisory Committee and/or Commission meetings.

COST SHARING CONSIDERATIONS

It shall be the policy of the Authority and the member agencies that any project expenses and cost savings shall be shared by all the member agencies.

A. The project costs for a project shall be paid by the participating water distribution agency, contracting agency, state and/or federal grants, or a combination of funding sources whenever possible. Unless another basis of cost sharing is approved by the Authority, costs that are not covered by the above sources shall be shared by the member agencies on the basis of their fixed capacity percentages:

• City of San Leandro	13.2%
• Oro Loma Sanitary District	26.5%
• Castro Valley Sanitary District	14.3%
• City of Hayward	20.7%
• Union Sanitary District	25.3%

- B. The volume of flow that a member agency treatment plant provides to another entity such as a water distribution or contracting agency for recycling purposes shall not be deducted from the effluent flow reported by that agency to the EBDA system. This way all agencies share in the resultant cost savings of pumping and dechlorination.
- C. A member agency has the right to sell effluent before it enters the EBDA system to any party and shall retain all proceeds from that sale provided that the effluent flow is reported as in B. above. The decision to provide recycled water in this manner should be based on the overall economics of a particular project. The total recycled flow shall be reported to the Authority on a monthly basis to allow inclusion of all recycling efforts to be reported by the Authority to regulatory agencies and the City of Brisbane.
- D. If the member agencies share in the project costs as described in A. above, then the lead agency and/or the Authority shall negotiate a price for the recycled water to the contracting agency. The proceeds for the sale of recycled water under these conditions shall go to the Authority's Water Recycling Fund, so that all member agencies shall benefit.
- E. Recycled water that is taken from the LAVWMA pipeline once it is in the boundary of the Authority and the member agencies shall not be deducted from the flow to the EBDA system that is reported by LAVWMA.
- F. If a member agency finances and constructs a separate treatment plant for raw wastewater, and effluent from that treatment plant is used to provide recycled water, the recycled portion of the flow does not need to be reported as part of the member agency's contribution to the EBDA system. All proceeds from the sale of recycled water from such a system as described here shall belong to the member agency.

The Authority and the member agencies shall participate in feasibility studies to determine the amount and type of water recycling that is economically feasible, safe, and appropriate for the contiguous service area. These studies may be conducted collectively, separately, or in conjunction with other public agencies.

Water recycling projects are by nature site-specific. All feasible uses should be studied to provide a comprehensive analysis of recycling opportunities.

HEALTH CRITERIA

The Authority and the member agencies shall comply with all applicable water recycling regulations at all times. It is understood that the Water Reclamation Criteria as detailed in Title 22 are the guiding regulations and as such are subject to change on a periodic basis. It shall be the policy of the Authority and the member agencies to track these regulations on a regular basis and respond to all requests for review and comment by the regulatory agencies.

The Authority shall support regulations that are based on sound science and reasonable risk that are balanced with the economic and social costs of meeting any proposed regulations. Title 22 criteria should be based on the following:

- health effects research should be conducted in those areas where data are lacking
- water recycling, health, and regulatory officials should cooperate in developing criteria that are attainable, reasonable and appropriate
- a uniform and coordinated approach between regulatory agencies should be developed
- revisions of regulations should be undertaken as technology and experience evolve

POSITIONS

The Authority supports the following positions which will allow for the protection of beneficial uses of the waters of the state and also encourages continued water recycling:

- recycled water is a valuable resource and should be classified separately from a waste discharge
- the State should continue to provide funding for water recycling projects by continuing to develop bond and loan programs
- the federal government should take a more active role in providing funding for water recycling projects
- due to the State's diverse climate, population distribution, and geography, regulations should be

derived on a regional basis whenever possible. Statewide regulations should apply only when consistent with local needs

- the net environmental benefit to surface and/or ground waters resulting for a recycled water discharge should be considered in the adoption and enforcement of standards
- consideration should be give to the economic and social impacts from any water quality discharge standard
- during severe drought periods, recycled water quality may not be able to meet discharge standards in some instances. Relaxation of regulations should be considered on a case-by-case basis to insure the continued use of a vital product
- self regenerating water softeners should be prohibited by ordinance, water contracts, or building codes to prevent salt buildup which may discourage recycling efforts
- collection and treatment systems should be constructed or upgraded to minimize saltwater intrusion into the systems
- pretreatment systems, including waste minimization programs should be aggressive and all local requirements should be enforced
- public education to educate small businesses and households about proper use and disposal of toxic and hazardous materials
- public education programs to increase public awareness and acceptance of water recycling should stress the following:
 - ♦ the need for augmenting water resources
 - ♦ methods of water conservation
 - ♦ economic and environmental benefits of water recycling
 - ♦ public health and safety precautions
 - ♦ public participation

TABLE 1-1. HIGHLY PROBABLE POTENTIAL USERS MATRIX

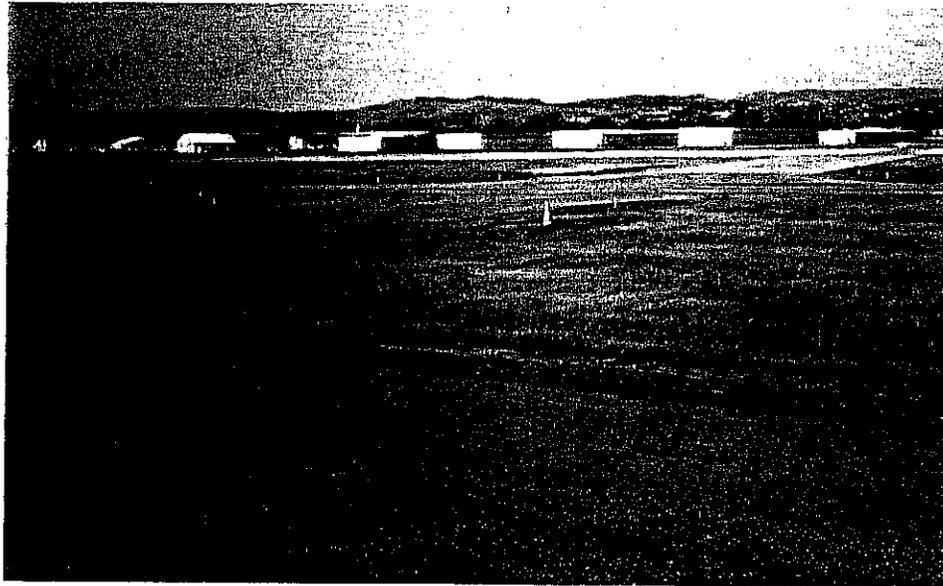
Project	User Demand		Required Level of Treatment	Distribution/Storage Requirements	Range of Approximate Deliverable Water Costs (\$ per Acre-Ft)		Acceptance by User/ Public/Regulatory Agency Comments
	Peak (gpm)	Yearly (MG)			Low	High	
Hayward Airport, Hayward Option 1:	25	0.9	Secondary	Use golf course lake	6,500	10,000	Utilize existing irrigated areas.
Hayward Airport, Hayward Option 2:	1,300	140	Secondary	Use golf course lake	270	400	Optimize water use by adding 100 acres of landscaping (turf).
Hayward Airport, Hayward Option 3:	1,300	140	Secondary	Use golf course lake	240	350	Same as option 2, except serve off Skywest Pump Station.
West Winton Landfill, Hayward Option 1:	2,000	33 up to 114	Secondary	Medium/None	80	120	High interest. Could be served by the Shell Oil Pipeline.
West Winton Landfill, Hayward Option 2:	2,000	33 up to 114	Secondary	Medium/None	67	94	Optional service from Hayward Pump Station.
Tony Lema Golf Courses, San Leandro	2,500	88	Secondary	Low/Lake	68	95	Will be changing out all irrigation piping soon. Could be served directly from EBDA force main.
Tony Lema/Marina Golf Courses, San Leandro	4,500	164	Secondary	Low/Lake	44	61	May require tertiary treatment or slight adjustment to irrigation system.
Holy Sepulchre Cemetery, Hayward	288	10	Secondary	High/None	1,100	1,900	Concerned about calcium buildup and marring of headstones
Chapel of the Chimes, Hayward Option 1:	28	1.0	Secondary	High/None	14,000	23,006	Just added another groundwater pump. Would consider if cheaper.

Project	User Demand		Required Level of Treatment	Distribution/Storage Requirements	Range of Approximate Deliverable Water Costs (\$ per Acre-Ft)		Acceptance by User/ Public/Regulatory Agency Comments
	Peak (gpm)	Yearly (MG)			Low	High	
Chapel of the Chimes, Hayward Option 2:	28	1.0	Secondary	High/None	1,270	2,100	Deliverable costs can be greatly reduced by combining with Holy Sepulchre Cemetery.
California State University, Hayward Option 1:	240	8.4	Tertiary (B)	Low/None	4,800	7,500	Have space for storage facilities
California State University, Hayward Option 2:	240	8.4	Tertiary (B)	Low/None	2,200	3,500	Deliverable water costs can be reduced by combining with Holy Sepulchre Cemetery.
East Bay Regional Park District	(A)	(A)	Tertiary (B)	Varies/None	(A)	(A)	High interest, but site specific. Possible long-term prospect.
Chabot Community College, Hayward	800	28	Tertiary (B)	Low/None	2,500	3,700	Concerned about costs to deliver recycled water to the campus. Have separate irrigation system. Could be served by the Shell Oil Pipeline.
California Department of Transportation (CALTRANS)	(A)	(A)	Secondary	Low/None	(A)	(A)	Extensive work being done to increase water recycling projects. Developing Caltrans' Water Recycling Master Plan-will target Highways 880, 238, and 92. Possible interest in using the Shell Oil Pipeline.

(A) Numerous areas for this user. Demand and costs vary per site.

(B) Tertiary filtration is required because this site is classified as an "unrestricted access."

Hayward Airport, Hayward



	<u>Option 1</u>	<u>Option 2</u>	<u>Option 3</u>
<i>Estimated Capital Cost:</i>	\$148,000-246,000	\$900,000-1,500,000	\$750,000-1,250,000
<i>Estimated O&M Cost:</i>	\$ 3,000	\$ 25,000	\$ 25,000
<i>Est. Del. Water Cost/Ac-Ft:</i>	\$ 6,500-10,000	\$270-400	\$240-350

Landscaping at the Hayward Airport has been left to die for water conservation purposes and because water costs have been prohibitively high. Projected water demands would require approximately 0.9 million gallons per year for irrigation. The nearest storage area or recycled water service connection is the Skywest Golf Course Lake/Recycled Water Reservoir. The combination of the new irrigation piping system, currently being installed, with the storage reservoir at Skywest could provide recycled water to the airport relatively easily. Because access is limited to much of the airport's landscaped access, secondary effluent can be used.

If the existing site landscaping can be expanded to make use of the whole site, about 100 acres of irrigated area could be added. This would greatly increase the amount of water that could be recycled (Option 2 and 3).

This facility is a priority alternative. Its proximity to two sources of recycled water, its ability to use secondary effluent, and its need for a cost effective alternative to potable water make the Hayward Airport an attractive alternative. A location map and pipeline route for the proposed project is shown in Figure 6-2.

New facilities required:

- 4" Force Main (Option 2 requires 8" line)
- Booster pump station (Option 1)
- Miscellaneous

Holy Sepulchre Cemetery, Hayward



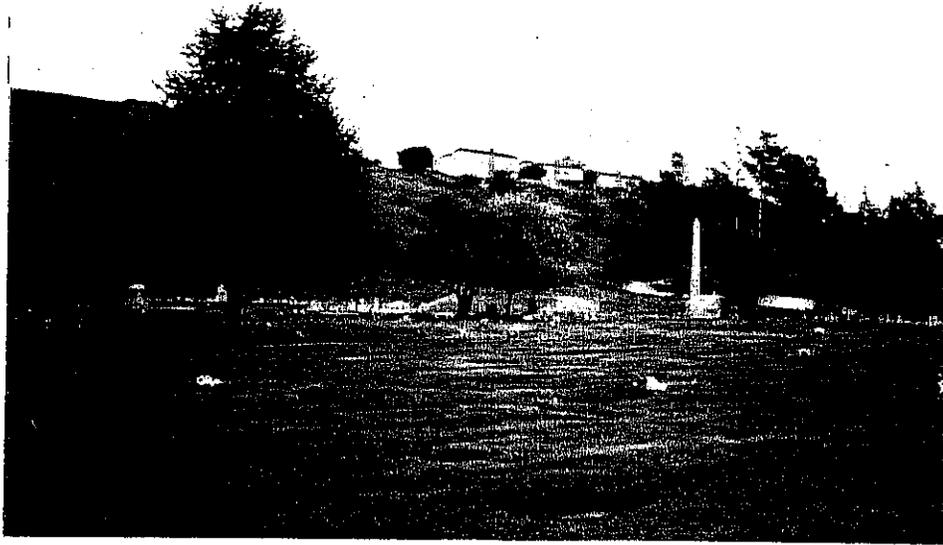
Estimated Capital Cost: \$ 322,000 - 536,000
Estimated O&M Cost: \$ 1,500
Est. Del. Water Cost/Ac.-Ft: \$ 1,100 - 1,900

The Holy Sepulchre Cemetery is located at the base of the Hayward hills, at the bay elevation. It is a restricted area that is currently using well and city water to irrigate the grounds. As a result, the recycled water would only need to be treated to the secondary level.

The cemetery would require approximately 10 million gallons of water per year, with the peak usage occurring during the summer months. Although this is not a large demand relative to the previously discussed projects, it is still a substantial quantity. The cemetery has a 20,000 gallon storage tank for non-potable water. The primary concern of using recycled water is marring of or calcium buildup on the headstones which has not been a problem with other cemeteries. A location map and pipeline route for the proposed project is shown in Figure 6-6.

New Facilities required:
Force main
Miscellaneous

Chapel of the Chimes, Hayward



	<u>Option 1</u>	<u>Option 2</u>
<i>Estimated Capital Cost:</i>	\$412,000-686,000	\$414,000-692,000
<i>Estimated O&M Cost:</i>	\$ 1,000	\$ 1,000
<i>Est. Del. Water Cost/Ac. -Ft:</i>	\$14,000-23,000	\$ 1,270-2,100

The Chapel of the Chimes Cemetery has approximately 20 acres of irrigable land. The cemetery currently uses well water for irrigation and recently installed another pump to cover the range of water demands. A 12,000 cf storage facility is located on-site and would be available to store recycled water. The costs associated with using groundwater are likely to be lower than the costs of using recycled water. The costs for this alternative are relatively high as a stand alone project (Option 1), because of the large capital costs to deliver a small quantity of water. However, in combination with Holy Sepulchre Cemetery (Option 2) the project is much more favorable.

New facilities required:

Force main

Miscellaneous

Chabot Community College, Hayward



<i>Estimated Capital Cost:</i>	<i>\$1,500,000 - 2,500,000</i>
<i>Estimated O&M Cost:</i>	<i>\$ 62,000</i>
<i>Est. Del. Water Cost/Ac.-Ft:</i>	<i>\$ 2,500 - 3,700</i>

Chabot Community College is located just north of Highway 92 and west of Hesperian Boulevard in Hayward and is close to the Hayward Water Pollution Control Facility. The campus has many fields for baseball, soccer, and football and, as a result, has a high irrigation water demand throughout the spring, summer and fall months.

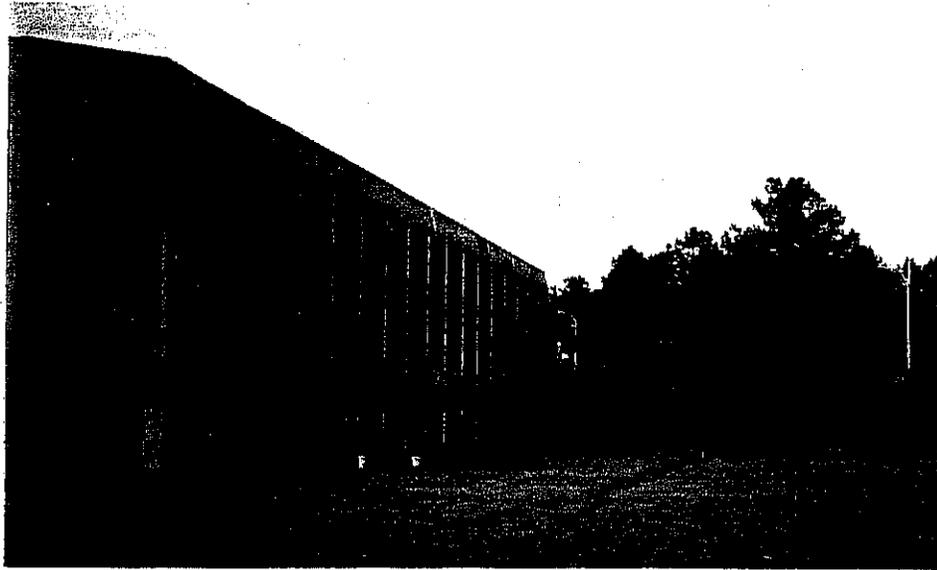
The college is currently served by two separate water systems. The domestic system uses water from City of Hayward (Purchased from City and County of San Francisco, via Hetch Hetchy Aqueduct) to feed the buildings and swimming pool(s) on campus. The irrigation system uses well water to irrigate fields and landscaping on campus. If necessary, the irrigation system can feed the swimming pool since the pool is maintained using a chemical treatment system.

All landscaping would require tertiary treated water since all areas are classified as "unrestricted use" areas. The primary drawback of this is that the campus is using well water which, at this time, is more feasible than tertiary treated water. It is possible that in several years it will be more feasible to use recycled water than well water.

Although the campus is currently using well water, recycled water is a high priority as a long-term prospect. Its close proximity to other potential users and to the transmission lines, as well as its high demand, make it an attractive potential user. A location map and pipeline route for the proposed project is shown in Figure 6-8.

New facilities required:
Force main, Package filtration system
Booster pump station, Miscellaneous

California State University at Hayward (CSUH), Hayward



	<u>Option 1</u>	<u>Option 2</u>
<i>Estimated Capital Cost:</i>	\$ 1,000,000-1,670,000	\$1,000,000-1,700,000
<i>Estimated O&M Cost:</i>	\$ 23,000	\$ 23,000
<i>Est. Del. Water Cost/Ac.-Ft:</i>	\$ 4,800-7,500	\$ 2,200-3,500

CSUH is a large university located in the Hayward hills at an approximate elevation of 500 feet. Some of the landscaping at CSUH is dying because the cost of irrigation is prohibitively high. The campus would prefer to water their grounds and are interested in the cost advantages associated with recycled water. Although the campus does not currently have a storage tank or lake for the recycled water, it has space for one.

CSUH landscaping irrigation is an attractive alternative because of its high water demand. The campus is closer to the LAVWMA pipeline, than the EBDA line or Shell Oil Pipeline so conveyance pipelines between the LAVWMA line and the campus would be required. The drawback associated with CSUH is that it is an unrestricted area and would therefore require tertiary water.

Deliverable water costs for this alternative can be reduced by combining the project with the Holy Sepulchre Cemetery (Option 2). A location map and pipeline route for the proposed project is shown in Figure 6-7.

New facilities required:
 8" force main
 Package filtration system
 Miscellaneous

APPENDIX E

WATER CONSERVATION
BMP IMPLEMENTATION
AND COVERAGE REPORTS

Water Supply & Reuse

Reporting Unit:
City of Hayward

Year:
2003

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
SFPUC	19817	Imported

Total AF: 19817

Reported as of 9/2

Accounts & Water UseReporting Unit Name:
City of HaywardSubmitted to
CUWCC
11/23/2004Year:
2003**A. Service Area Population Information:**

1. Total service area population 140000

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	25984	8310	0	0
2. Multi-Family	556	3165	0	0
3. Commercial	1557	1538	0	0
4. Industrial	1176	2973	0	0
5. Institutional	300	1101	0	0
6. Dedicated Irrigation	1017	2121	0	0
7. Recycled Water	0	0	0	0
8. Other	89	62	0	0
9. Unaccounted	NA	547	NA	0
Total	30679	19817	0	0
		Metered		Unmetered

Reported as of 9/2

BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

- | | |
|--|------------|
| 1. Based on your signed MOU date, 04/06/1992, your Agency STRATEGY DUE DATE is: | 04/06/1994 |
| 2. Has your agency developed and implemented a targeting/marketing strategy for SINGLE-FAMILY residential water use surveys? | no |
| a. If YES, when was it implemented? | |
| 3. Has your agency developed and implemented a targeting/marketing strategy for MULTI-FAMILY residential water use surveys? | no |
| a. If YES, when was it implemented? | |

B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	0	0
2. Number of surveys completed:	0	0

Indoor Survey:

- | | | |
|---|----|----|
| 3. Check for leaks, including toilets, faucets and meter checks | no | no |
| 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary | no | no |
| 5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary | no | no |

Outdoor Survey:

- | | | |
|--|----|------|
| 6. Check irrigation system and timers | no | no |
| 7. Review or develop customer irrigation schedule | no | no |
| 8. Measure landscaped area (Recommended but not required for surveys) | no | no |
| 9. Measure total irrigable area (Recommended but not required for surveys) | no | no |
| 10. Which measurement method is typically used (Recommended but not required for surveys) | | None |
| 11. Were customers provided with information packets that included evaluation results and water savings recommendations? | no | no |
| 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked? | no | no |
| a. If yes, in what form are surveys tracked? | | None |

b. Describe how your agency tracks this information.

C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

The City has a very low per capita usage, and we believe that very little savings would result from residential surveys. We believe that water conservation dollars can be used more effectively in other programs. A cost/benefit analysis will be prepared in 2004-05 to determine if this assumption is correct.

Reported as of 9/2

BMP 02: Residential Plumbing Retrofit

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2003

A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no
- a. If YES, list local jurisdictions in your service area and code or ordinance in each:
2. Has your agency satisfied the 75% saturation requirement for single-family housing units? no
3. Estimated percent of single-family households with low-flow showerheads: %
4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no
5. Estimated percent of multi-family households with low-flow showerheads: %
6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes
- a. If YES, when did your agency begin implementing this strategy? 9/1/1999
- b. Describe your targeting/ marketing strategy.

Distributed 4,800 low-flow plumbing devices to qualified single-family customers in 1999 and 2000. Marketed primarily through billing inserts.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	0	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0
6. Does your agency track the distribution and cost of low-flow devices?		yes
a. If YES, in what format are low-flow devices tracked?		Database
b. If yes, describe your tracking and distribution system :		

Database used to track customer name, address, year home was built and follow-up activities.

C. Low-Flow Device Distribution Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	20000

2. Actual Expenditures

0

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?

No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Reported as of 9/2

BMP 03: System Water Audits, Leak Detection and RepairReporting Unit:
City of HaywardBMP Form Status:
100% CompleteYear:
2003**A. Implementation**

1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
- | | |
|--|-------|
| a. Determine metered sales (AF) | 19270 |
| b. Determine other system verifiable uses (AF) | 0 |
| c. Determine total supply into the system (AF) | 19817 |
| d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. | 0.97 |
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? no
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
6. Does your agency operate a system leak detection program? yes
- a. If yes, describe the leak detection program:

The City last completed a full system-wide leak detection and repair survey in 1993, during which major leaks were corrected. Currently, a water usage audit is prepared regularly, and unaccounted for water usage has been below the threshold for a full-scale leak detection and repair effort. Leaks are fixed as they are located through various sources. Also, customers are notified when higher-than-usual consumption is noted.

B. Survey Data

1. Total number of miles of distribution system line. 325
2. Number of miles of distribution system line surveyed. 0

C. System Audit / Leak Detection Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

While specific budget funds are not allocated for leak detection and repair, the City maintains an active line replacement program to repair and replace aging and deteriorating lines. If an audit indicates the need for additional leak detection and repair, funding would be budgeted at that time.

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2003**

A. Water Use Budgets

- | | |
|--|------|
| 1. Number of Dedicated Irrigation Meter Accounts: | 1017 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets: | 0 |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF): | 0 |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no |

B. Landscape Surveys

- | | |
|--|----|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | no |
| a. If YES, when did your agency begin implementing this strategy? | |
| b. Description of marketing / targeting strategy: | |
| 2. Number of Surveys Offered. | 0 |
| 3. Number of Surveys Completed. | 0 |
| 4. Indicate which of the following Landscape Elements are part of your survey: | |
| a. Irrigation System Check | no |
| b. Distribution Uniformity Analysis | no |
| c. Review / Develop Irrigation Schedules | no |
| d. Measure Landscape Area | no |
| e. Measure Total Irrigable Area | no |
| f. Provide Customer Report / Information | no |
| 5. Do you track survey offers and results? | no |
| 6. Does your agency provide follow-up surveys for previously completed surveys? | no |
| a. If YES, describe below: | |

C. Other BMP 5 Actions

- | | |
|---|----|
| 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. Does your agency provide mixed-use accounts with landscape budgets? | no |
| 2. Number of CII mixed-use accounts with landscape budgets. | 0 |
| 3. Do you offer landscape irrigation training? | no |
| 4. Does your agency offer financial incentives to improve landscape water use efficiency? | no |

Type of Financial Incentive:	Budget (Dollars/	Number Awarded to Customers	Total Amount
------------------------------	------------------	-----------------------------	--------------

Year)	Awarded
a. Rebates	
b. Loans	
c. Grants	
5. Do you provide landscape water use efficiency information to new customers and customers changing services?	yes
a. If YES, describe below:	
Water efficient landscape ordinance	
6. Do you have irrigated landscaping at your facilities?	yes
a. If yes, is it water-efficient?	yes
b. If yes, does it have dedicated irrigation metering?	yes
7. Do you provide customer notices at the start of the irrigation season?	no
8. Do you provide customer notices at the end of the irrigation season?	no

D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	50000	50000
2. Actual Expenditures	50000	

E. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

F. Comments

Budget expenditures for City-owned landscaping conservation. Cost/benefit analysis will be performed during 2004-05 to determine the cost effectiveness of the remainder of this BMP.

Reported as of 9/2

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2003

A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

PG&E offers rebate incentive at various times for the purchase of an "Energy Star" certified clothes washing machine.

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate? 75

4. Number of rebates awarded. 450

B. Rebate Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	35000	10000
2. Actual Expenditures	31200	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 9/2

BMP 07: Public Information Programs

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2003

A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

City staff attend community and business events, distribute information, and discuss water conservation opportunities with residents and business representatives.

2. Indicate which and how many of the following activities are included in your public information program.

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	no	
b. Public Service Announcement	no	
c. Bill Inserts / Newsletters / Brochures	yes	3
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	no	
f. Special Events, Media Events	yes	3
g. Speaker's Bureau	no	
h. Program to coordinate with other government agencies, industry and public interest groups and media	no	

B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	5000	5000
2. Actual Expenditures	750	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 9/2

BMP 08: School Education ProgramsReporting Unit:
City of HaywardBMP Form Status:
100% CompleteYear:
2003**A. Implementation**

1. Has your agency implemented a school information program to promote water conservation? no

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
-------	--	----------------------------	-------------------------	----------------------------

Grades K-3rd

Grades 4th-6th

Grades 7th-8th

High School

3. Did your Agency's materials meet state education framework requirements?

4. When did your Agency begin implementing this program?

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	1000	1000
2. Actual Expenditures	750	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Hayward students, Grades 4-6, participated in the annual Water Conservation poster contest.

Reported as of 9/2

BMP 09: Conservation Programs for CII AccountsReporting Unit:
City of HaywardBMP Form Status:
100% CompleteYear:
2003**A. Implementation**

- | | |
|--|----|
| 1. Has your agency identified and ranked COMMERCIAL customers according to use? | no |
| 2. Has your agency identified and ranked INDUSTRIAL customers according to use? | no |
| 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? | no |

Option A: CII Water Use Survey and Customer Incentives Program

- | | |
|---|----|
| 4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? | no |
|---|----|

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered			
b. Number of New Surveys Completed			
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)			
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)			
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit			
f. Evaluation of all water-using apparatus and processes			
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives			
Agency CII Customer Incentives	Budget (\$/Year)	No. Awarded to Customers	Total \$ Amount Awarded
h. Rebates			
i. Loans			
j. Grants			
k. Others			

Option B: CII Conservation Program Targets

- | | |
|---|----|
| 5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? | no |
| 6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? | no |
| 7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991. | 0 |
| 8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991. | 0 |

B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	0	10000
2. Actual Expenditures	0	

C. "At Least As Effective As"

- | | |
|--|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? | No |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." | |

D. Comments

The City has not yet implemented a CII program. A cost/benefit analysis will be prepared in 2004-05 to determine cost effectiveness of this BMP.

Reported as of 9/2

BMP 09a: CII ULFT Water Savings

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2003

1. Did your agency implement a CII ULFT replacement program in the reporting year?
If No, please explain why on Line B. 10.

No

A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program?

Check all that apply.

- a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

2. How does your agency advertise this program? Check all that apply.

- a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)

no

2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?

Yes

3. What is the total number of customer accounts participating in the program during the last year ?

0

CII Subsector	Number of Toilets Replaced			
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount
4.				
a. Offices				
b. Retail / Wholesale				
c. Hotels				
d. Health				
e. Industrial				
f. Schools: K to 12				
g. Eating				
h. Govern- ment				
i. Churches				
j. Other				

5. Program design.

6. Does your agency use outside services to implement this program?

a. If yes, check all that apply.

7. Participant tracking and follow-up.

8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.

a. Disruption to business

b. Inadequate payback

c. Inadequate ULFT performance

d. Lack of funding

e. American's with Disabilities Act

f. Permitting

g. Other. Please describe in B. 9.

9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

Hayward has not implemented a CII ULFT replacement program. A cost/benefit analysis will be performed during 2004-05 to determine the cost effectiveness of this BMP.

C. Conservation Program Expenditures for CII ULFT

1. CII ULFT Program: Annual Budget & Expenditure Data

	Budgeted	Actual Expenditure
a. Labor		
b. Materials		
c. Marketing & Advertising		
d. Administration & Overhead		
e. Outside Services		
f. Total	0	0

2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution		
b. State agency contribution		
c. Federal agency contribution		
d. Other contribution		
e. Total		0

BMP 11: Conservation Pricing

Reporting Unit:
City of Hayward

BMP Form
Status:
100% Complete

Year:
2003

A. Implementation**Rate Structure Data Volumetric Rates for Water Service by Customer Class****1. Residential**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Increasing Block
c. Total Revenue from Volumetric Rates	\$9800000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$1410000

2. Commercial

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$2100000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$205000

3. Industrial

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$3250000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$330000

4. Institutional / Government

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$1140000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$124000

5. Irrigation

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$0
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$0

6. Other

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$90000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$4000

B. Conservation Pricing Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Volumetric-related revenue listed is for water only and includes revenue from irrigation-only accounts (not currently tracked separately). Non-volumetric charges are primarily meter service charges. Note that CII sewer rates uniform, but actual charges are volume dependent.

Reported as of 9/2

BMP 12: Conservation CoordinatorReporting Unit:
City of HaywardBMP Form Status:
100% CompleteYear:
2003**A. Implementation**

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? no
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ? no
4. Partner agency's name:
5. If your agency supplies the conservation coordinator:
 - a. What percent is this conservation coordinator's position? 10%
 - b. Coordinator's Name Marilyn Mosher
 - c. Coordinator's Title Administrative Analyst III
 - d. Coordinator's Experience and Number of Years 5 years experience; certified Water Conservation Practitioner
 - e. Date Coordinator's position was created (mm/dd/yyyy) 7/1/1998
6. Number of conservation staff, including Conservation Coordinator. 1

B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	9500	10200
2. Actual Expenditures	9500	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

While the Water Conservation Coordinator position is not full-time, the City allocates about 10% of a full-time Administrative Analyst position to water conservation activities, allowing for flexibility and management of available resources.

Reported as of 9/2

BMP 13: Water Waste Prohibition

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2003

A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

Prohibits or restricts certain non-essential activities considered to be water wasting.

2. Is a copy of the most current ordinance(s) on file with CUWCC? yes

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

City of Hayward

Ord. 93-10

B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

a. Gutter flooding yes

b. Single-pass cooling systems for new connections no

c. Non-recirculating systems in all new conveyor or car wash systems yes

d. Non-recirculating systems in all new commercial laundry systems no

e. Non-recirculating systems in all new decorative fountains no

f. Other, please name yes
Outdoor washing activities w/out shut-off nozzle

2. Describe measures that prohibit water uses listed above:

1. Installation of flow restricting device 2. Discontinuation or reduction of water service 3. Injunctive relief 4. Monetary penalties

Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:

a. Allow the sale of more efficient, demand-initiated regenerating DIR models. no

b. Develop minimum appliance efficiency standards that:

i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. no

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. no

4. Does your agency include water softener checks in home water audit programs? no

5. Does your agency include information about DIR and exchange-

type water softeners in educational efforts to encourage replacement of less efficient timer models?

no

C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?

no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Reported as of 9/2

BMP 14: Residential ULFT Replacement Programs

Reporting Unit:

BMP Form Status:

Year:

City of Hayward**100% Complete****2003****A. Implementation**

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	no

Number of Toilets Replaced by Agency Program During Report Year

Replacement Method	SF Accounts	MF Units
2. Rebate	285	0
3. Direct Install	0	0
4. CBO Distribution		

Water Supply & Reuse

Reporting Unit:

City of Hayward

Year:

2004

Water Supply Source Information

Supply Source Name

Quantity (AF) Supplied

Supply Type

SFPUC

22011

Imported

Total AF: 22011

Reported as of 9/2

Accounts & Water Use

Reporting Unit Name:
City of Hayward

Submitted to
CUWCC
11/24/2004

Year:
2004

A. Service Area Population Information:

1. Total service area population 140000

B. Number of Accounts and Water Deliveries (AF)

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	26456	8641	0	0
2. Multi-Family	559	3084	0	0
3. Commercial	1565	1501	0	0
4. Industrial	1184	2747	0	0
5. Institutional	305	1167	0	0
6. Dedicated Irrigation	1041	2530	0	0
7. Recycled Water	0	0	0	0
8. Other	73	262	0	0
9. Unaccounted	NA	2079	NA	0
Total	31183	22011	0	0

Metered

Unmetered

Reported as of 9/2

BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

- 1. Based on your signed MOU date, 04/06/1992, your Agency STRATEGY DUE DATE is: 04/06/1994
- 2. Has your agency developed and implemented a targeting/marketing strategy for SINGLE-FAMILY residential water use surveys? no
 - a. If YES, when was it implemented?
- 3. Has your agency developed and implemented a targeting/marketing strategy for MULTI-FAMILY residential water use surveys? no
 - a. If YES, when was it implemented?

B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	0	0
2. Number of surveys completed:	0	0

Indoor Survey:

- 3. Check for leaks, including toilets, faucets and meter checks no no
- 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary no no
- 5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary no no

Outdoor Survey:

- 6. Check irrigation system and timers no no
- 7. Review or develop customer irrigation schedule no no
- 8. Measure landscaped area (Recommended but not required for surveys) no no
- 9. Measure total irrigable area (Recommended but not required for surveys) no no
- 10. Which measurement method is typically used (Recommended but not required for surveys) None
- 11. Were customers provided with information packets that included evaluation results and water savings recommendations? no no
- 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked? no no
 - a. If yes, in what form are surveys tracked? None

b. Describe how your agency tracks this information.

C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

The City has a very low per capita usage, and we believe that very little savings would result from residential surveys. We believe that water conservation dollars can be used more effectively in other programs. A cost/benefit analysis will be prepared in 2004-05 to determine if this assumption is correct.

Reported as of 9/2

BMP 02: Residential Plumbing Retrofit

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no
 - a. If YES, list local jurisdictions in your service area and code or ordinance in each:

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? no
3. Estimated percent of single-family households with low-flow showerheads: %
4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no
5. Estimated percent of multi-family households with low-flow showerheads: %
6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes
 - a. If YES, when did your agency begin implementing this strategy? 9/1/1999
 - b. Describe your targeting/ marketing strategy.

Distributed 4,800 low-flow plumbing devices to qualified single-family customers in 1999 and 2000. Marketed primarily through billing inserts.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	0	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0
6. Does your agency track the distribution and cost of low-flow devices?		yes
a. If YES, in what format are low-flow devices tracked?		Database
b. If yes, describe your tracking and distribution system :		

Database used to track customer name, address, year home was built and follow-up activities.

C. Low-Flow Device Distribution Expenditures

	This Year	Next Year
1. Budgeted Expenditures	20000	20000

2. Actual Expenditures 0

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Reported as of 9/2

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
 - a. Determine metered sales (AF) 19932
 - b. Determine other system verifiable uses (AF) 0
 - c. Determine total supply into the system (AF) 22011
 - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.91
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? no
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
6. Does your agency operate a system leak detection program? yes
 - a. If yes, describe the leak detection program:

The City last completed a full system-wide leak detection and repair survey in 1993, during which major leaks were corrected. Currently, a water usage audit is prepared regularly, and unaccounted for water usage has been below the threshold for a full-scale leak detection and repair effort. Leaks are fixed as they are located through various sources. Also, customers are notified when higher-than-usual consumption is noted.

B. Survey Data

1. Total number of miles of distribution system line. 325
2. Number of miles of distribution system line surveyed. 0

C. System Audit / Leak Detection Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

While specific budget funds are not allocated for leak detection and repair, the City maintains an active line replacement program to repair and replace aging and deteriorating lines. If an audit indicates the need for additional leak detection and repair, funding would be budgeted at that time.

BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

1. Does your agency require meters for all new connections and bill by volume-of-use? yes

2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? no

a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed?

b. Describe the program:

All water system connections are metered.

3. Number of previously unmetered accounts fitted with meters during report year. 0

B. Feasibility Study

1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? no

a. If YES, when was the feasibility study conducted? (mm/dd/yy)

b. Describe the feasibility study:

2. Number of CII accounts with mixed-use meters. 2871

3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. 0

C. Meter Retrofit Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2004**

A. Water Use Budgets

- 1. Number of Dedicated Irrigation Meter Accounts: 1041
- 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets: 0
- 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF): 0
- 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF): 0
- 5. Does your agency provide water use notices to accounts with budgets each billing cycle? no

B. Landscape Surveys

- 1. Has your agency developed a marketing / targeting strategy for landscape surveys? no
 - a. If YES, when did your agency begin implementing this strategy?
 - b. Description of marketing / targeting strategy:
- 2. Number of Surveys Offered. 0
- 3. Number of Surveys Completed. 0
- 4. Indicate which of the following Landscape Elements are part of your survey:
 - a. Irrigation System Check no
 - b. Distribution Uniformity Analysis no
 - c. Review / Develop Irrigation Schedules no
 - d. Measure Landscape Area no
 - e. Measure Total Irrigable Area no
 - f. Provide Customer Report / Information no
- 5. Do you track survey offers and results? no
- 6. Does your agency provide follow-up surveys for previously completed surveys? no
 - a. If YES, describe below:

C. Other BMP 5 Actions

- 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. Does your agency provide mixed-use accounts with landscape budgets? no
- 2. Number of CII mixed-use accounts with landscape budgets. 0
- 3. Do you offer landscape irrigation training? no
- 4. Does your agency offer financial incentives to improve landscape water use efficiency? no

Type of Financial Incentive:	Budget (Dollars/	Number Awarded to Customers	Total Amount
------------------------------	------------------	-----------------------------	--------------

Year)	Awarded
a. Rebates	
b. Loans	
c. Grants	
5. Do you provide landscape water use efficiency information to new customers and customers changing services?	No
a. If YES, describe below:	
Water efficient landscape ordinance	
6. Do you have irrigated landscaping at your facilities?	yes
a. If yes, is it water-efficient?	yes
b. If yes, does it have dedicated irrigation metering?	yes
7. Do you provide customer notices at the start of the irrigation season?	no
8. Do you provide customer notices at the end of the irrigation season?	no

D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	50000	50000
2. Actual Expenditures	50000	

E. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

F. Comments

Budget expenditures for City-owned landscaping conservation. Cost/benefit analysis will be performed during 2004-05 to determine the cost effectiveness of the remainder of this BMP.

Reported as of 9/2

BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2004

A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

PG&E offers rebates at various times for the purchase of Energy Star certified washing machines

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate? 75

4. Number of rebates awarded. 85

B. Rebate Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	10000	0
2. Actual Expenditures	8700	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 9/2

BMP 07: Public Information Programs

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2004

A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

City staff attend community and business events, distribute information, and discuss water conservation opportunities with residents and business representatives.

2. Indicate which and how many of the following activities are included in your public information program.

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	no	
b. Public Service Announcement	no	
c. Bill Inserts / Newsletters / Brochures	yes	2
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	no	
f. Special Events, Media Events	yes	3
g. Speaker's Bureau	no	
h. Program to coordinate with other government agencies, industry and public interest groups and media	no	

B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	5000	5000
2. Actual Expenditures	1000	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Reported as of 9/2

BMP 08: School Education Programs

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

1. Has your agency implemented a school information program to promote water conservation? no

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
-------	--	----------------------------	-------------------------	----------------------------

Grades K-3rd

Grades 4th-6th

Grades 7th-8th

High School

3. Did your Agency's materials meet state education framework requirements?

4. When did your Agency begin implementing this program?

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	1000	10000
2. Actual Expenditures	750	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Hayward students, Grades 4-6, participated in the annual Water Conservation poster contest.

Reported as of 9/2

BMP 09: Conservation Programs for CII Accounts

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2004

A. Implementation

- 1. Has your agency identified and ranked COMMERCIAL customers according to use? no
- 2. Has your agency identified and ranked INDUSTRIAL customers according to use? no
- 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? no

Option A: CII Water Use Survey and Customer Incentives Program

- 4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? no

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered			
b. Number of New Surveys Completed			
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)			
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)			
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit			
f. Evaluation of all water-using apparatus and processes			
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives			
Agency CII Customer Incentives	Budget (\$/Year)	No. Awarded to Customers	Total \$ Amount Awarded
h. Rebates			
i. Loans			
j. Grants			
k. Others			

Option B: CII Conservation Program Targets

- 5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? no
- 6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? no
- 7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991. 0
- 8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991. 0

B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	10000	10000
2. Actual Expenditures	5000	

C. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

The City participated in the pre-rinse spray valve program, installing over 100 units in local restaurants in 2003-04. However, the City has not yet implemented a full CII program. A cost/benefit analysis will be prepared in 2004-05 to determine cost effectiveness of this BMP.

Reported as of 9/2

BMP 09a: CII ULFT Water Savings

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2004**

1. Did your agency implement a CII ULFT replacement program in the reporting year? No
 If No, please explain why on Line B. 10.

A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program?
 Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

2. How does your agency advertise this program? Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.) no

2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency? Yes

3. What is the total number of customer accounts participating in the program during the last year ? 0

CII Subsector	Number of Toilets Replaced			
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount
a. Offices				
b. Retail / Wholesale				
c. Hotels				
d. Health				
e. Industrial				
f. Schools: K to 12				
g. Eating				
h. Government				
i. Churches				
j. Other				

5. Program design.

- 6. Does your agency use outside services to implement this program?
 - a. If yes, check all that apply.
- 7. Participant tracking and follow-up.
- 8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.
 - a. Disruption to business
 - b. Inadequate payback
 - c. Inadequate ULFT performance
 - d. Lack of funding
 - e. American's with Disabilities Act
 - f. Permitting
 - g. Other. Please describe in B. 9.
- 9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.
- 10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

Hayward has not implemented a CII ULFT replacement program. A cost/benefit analysis will be performed during 2004-05 to determine the cost effectiveness of this BMP.

C. Conservation Program Expenditures for CII ULFT

1. CII ULFT Program: Annual Budget & Expenditure Data

	Budgeted	Actual Expenditure
a. Labor		
b. Materials		
c. Marketing & Advertising		
d. Administration & Overhead		
e. Outside Services		
f. Total	0	0

2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution		
b. State agency contribution		
c. Federal agency contribution		
d. Other contribution		
e. Total		0

BMP 11: Conservation Pricing

Reporting Unit:
City of Hayward

BMP Form
Status:
100% Complete

Year:
2004

A. Implementation**Rate Structure Data Volumetric Rates for Water Service by Customer Class****1. Residential**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Increasing Block
c. Total Revenue from Volumetric Rates	\$12500000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$1340000

2. Commercial

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$2030000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$197000

3. Industrial

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$4050000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$315000

4. Institutional / Government

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$1620000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$118000

5. Irrigation

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$0
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$0

6. Other

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$90000
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$4000

B. Conservation Pricing Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Volumetric-related revenue listed is for water only and includes revenue from irrigation-only accounts (not currently tracked separately). Non-volumetric charges are primarily meter service charges. Note that CII sewer rates uniform, but actual charges are volume dependent.

Reported as of 9/2

BMP 12: Conservation Coordinator

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2004

A. Implementation

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? no
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ? no
4. Partner agency's name:
5. If your agency supplies the conservation coordinator:
 - a. What percent is this conservation coordinator's position? 10%
 - b. Coordinator's Name Marilyn Mosher
 - c. Coordinator's Title Administrative Analyst III
 - d. Coordinator's Experience and Number of Years 6 years experience; certified Water Conservation Practitioner
 - e. Date Coordinator's position was created (mm/dd/yyyy) 7/1/1998
6. Number of conservation staff, including Conservation Coordinator. 1

B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	10200	11000
2. Actual Expenditures	10200	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
 - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

While the Water Conservation Coordinator position is not full-time, the City allocates about 10% of a full-time Administrative Analyst position to water conservation activities, allowing for flexibility and management of available resources.

Reported as of 9/2

BMP 13: Water Waste Prohibition

Reporting Unit:
City of Hayward

BMP Form Status:
100% Complete

Year:
2004

A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

Prohibits or restricts certain non-essential activities considered to be water wasting.

2. Is a copy of the most current ordinance(s) on file with CUWCC? yes

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

City of Hayward

Ord. 93-10

B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

a. Gutter flooding yes

b. Single-pass cooling systems for new connections no

c. Non-recirculating systems in all new conveyor or car wash systems yes

d. Non-recirculating systems in all new commercial laundry systems no

e. Non-recirculating systems in all new decorative fountains no

f. Other, please name yes
Outdoor washing activities w/out shut-off nozzle

2. Describe measures that prohibit water uses listed above:

1. Installation of flow restricting device 2. Discontinuation or reduction of water service 3. Injunctive relief 4. Monetary penalties

Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:

a. Allow the sale of more efficient, demand-initiated regenerating DIR models. no

b. Develop minimum appliance efficiency standards that:

i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. no

ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. no

4. Does your agency include water softener checks in home water audit programs? no

5. Does your agency include information about DIR and exchange-

type water softeners in educational efforts to encourage replacement of less efficient timer models? no

C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

E. Comments

Reported as of 9/2

BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **City of Hayward** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no

Number of Toilets Replaced by Agency Program During Report Year

Replacement Method	SF Accounts	MF Units
2. Rebate	20	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	0	0
Total	20	0

6. Describe your agency's ULFT program for single-family residences.

Through June 2003, Hayward provided a \$100 rebate per toilet for the replacement of up to two existing toilets per single-family residential unit. About 20 qualified applicants received rebates after the deadline.

7. Describe your agency's ULFT program for multi-family residences.

N/A

8. Is a toilet retrofit on resale ordinance in effect for your service area? no

9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

B. Residential ULFT Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	50000	50000
2. Actual Expenditures	2000	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

BMP 01 Coverage: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit:
City of Hayward

Reporting Period:
03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

A Reporting Unit (RU) must meet three conditions to satisfy strict compliance for BMP 1.

Condition 1: Adopt survey targeting and marketing strategy on time

Condition 2: Offer surveys to 20% of SF accounts and 20% of MF units during report period

Condition 3: Be on track to survey 15% of SF accounts and 15% of MF units within 10 years of implementation start date.

Test for Condition 1

City of Hayward to Implement Targeting/Marketing Program by:	1999		
		<u>Single-Family</u>	<u>Multi-Family</u>
Year City of Hayward Reported Implementing Targeting/Marketing Program:			
City of Hayward Met Targeting/Marketing Coverage Requirement:		NO	NO

Test for Condition 2

			<u>Single-Family</u>	<u>Multi-Family</u>
Survey Program to Start by:	1998	Residential Survey Offers (%)		
Reporting Period:	03-04	Survey Offers \geq 20%	NO	NO

Test for Condition 3

	Completed Residential Surveys	
	<u>Single Family</u>	<u>Multi-Family</u>
Total Completed Surveys 1999 - 2004:		
Past Credit for Surveys Completed Prior to 1999 (Implementation of Reporting Database):		
Total + Credit		
	24,829	19,171

Residential Accounts in Base Year

City of Hayward Survey Coverage as % of Base Year
Residential Accounts

Coverage Requirement by Year 7 of Implementation per Exhibit 1	7.90%	7.90%
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City of Hayward on Schedule to Meet 10-Year Coverage Requirement	NO	NO
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BMP 1 COVERAGE STATUS SUMMARY:**Water supplier has not met one or more coverage requirements for this BMP.**

Reported as of 9/2

BMP 02 Coverage: Residential Plumbing Retrofit

Reporting Unit:

Reporting Period:

City of Hayward

03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one of three conditions to satisfy strict compliance for BMP 2.

Condition 1: The agency has demonstrated that 75% of SF accounts and 75% of MF units constructed prior to 1992 are fitted with low-flow showerheads.

Condition 2: An enforceable ordinance requiring the replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts is in place for the agency's service area.

Condition 3: The agency has distributed or directly installed low-flow showerheads and other low-flow plumbing devices to not less than 10% of single-family accounts and 10% of multi-family units constructed prior to 1992 during the reporting period.

Test for Condition 1

Report Year	Report Period	Single-Family		Multi-Family	
		Reported Saturation	Saturation > 75%?	Reported Saturation	Saturation > 75%?
1999	99-00		NO		NO
2000	99-00		NO		NO
2001	01-02		NO		NO
2002	01-02		NO		NO
2003	03-04		NO		NO
2004	03-04		NO		NO

Test for Condition 2

Report Year	Report Period	City of Hayward has ordinance requiring showerhead retrofit?
1999	99-00	NO
2000	99-00	NO
2001	01-02	NO
2002	01-02	NO
2003	03-04	NO
2004	03-04	NO

Test for Condition 3

Reporting Period: 03-04

<u>1992 SF Accounts</u>	<u>Num. Showerheads Distributed to SF Accounts</u>	<u>Single-Family Coverage Ratio</u>	<u>SF Coverage Ratio > 10%</u>
24,031			NO
<u>1992 MF Accounts</u>	<u>Num. Showerheads Distributed to MF Accounts</u>	<u>Multi-Family Coverage Ratio</u>	<u>MF Coverage Ratio > 10%</u>

18,946

NO

BMP 2 COVERAGE STATUS SUMMARY:

Water supplier has not met one or more coverage requirements for this BMP.

BMP 03 Coverage: System Water Audits, Leak Detection and Repair

Reporting Unit:
City of Hayward

Reporting Period:
03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one of two conditions to be in compliance with BMP 3:

Condition 1: Perform a prescreening audit. If the result is equal to or greater than 0.9 nothing more needs be done.

Condition 2: Perform a prescreening audit. If the result is less than 0.9, perform a full audit in accordance with AWWA's Manual of Water Supply Practices, Water Audits, and Leak Detection.

Test for Conditions 1 and 2

<u>Report Year</u>	<u>Report Period</u>	<u>Pre-Screen Completed</u>	<u>Pre-Screen Result</u>	<u>Full Audit Indicated</u>	<u>Full Audit Completed</u>
1999	99-00	YES	91.3%	No	NO
2000	99-00	YES	94.4%	No	NO
2001	01-02	YES	95.9%	No	NO
2002	01-02	YES	97.2%	No	NO
2003	03-04	YES	97.2%	No	NO
2004	03-04	YES	90.6%	No	NO

BMP 3 COVERAGE STATUS SUMMARY:

Water supplier is meeting coverage requirements for this BMP.

BMP 04 Coverage: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit:

Reporting Period:

City of Hayward

03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must be on track to retrofit 100% of its unmetered accounts within 10 years to be in compliance with BMP 4.

Test for Compliance

Total Meter Retrofits Reported through 2004

No. of Unmetered Accounts in Base Year

Meter Retrofit Coverage as % of Base Year Unmetered Accounts

Coverage Requirement by Year 6 of Implementation per Exhibit 1

42.0%

RU on Schedule to meet 10 Year Coverage Requirement

YES

BMP 4 COVERAGE STATUS SUMMARY:

Water supplier is meeting coverage requirements for this BMP.

Reported as of 9/2

BMP 05 Coverage: Large Landscape Conservation Programs and Incentives

Reporting Unit:
City of Hayward

Reporting Period:
03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet three conditions to comply with BMP 5.

Condition 1: Develop water budgets for 90% of its dedicated landscape meter accounts within four years of the date implementation is to start.

Condition 2: (a) Offer landscape surveys to at least 20% of its CII accounts with mixed use meters each report cycle and be on track to survey at least 15% of its CII accounts with mixed use meters within 10 years of the date implementation is to start OR (b) Implement a dedicated landscape meter retrofit program for CII accounts with mixed use meters or assign landscape budgets to mixed use meters.

Condition 3: Implement and maintain customer incentive program(s) for irrigation equipment retrofits.

Test for Condition 1

Year	Report Period	BMP 5 Implementation Year	No. of Irrigation Meter Accounts	No. of Irrigation Accounts with Budgets	Budget Coverage Ratio	90% Coverage Met by Year 4
1999	99-00	1	894			NA
2000	99-00	2	902			NA
2001	01-02	3	849			NA
2002	01-02	4	882			No
2003	03-04	5	1,017			No
2004	03-04	6	1,041			No

Test for Condition 2a (survey offers)

Select Reporting Period: 03-04
 Large Landscape Survey Offers as % of Mixed Use Meter CII Accounts
 Survey Offers Equal or Exceed 20% Coverage Requirement NO

Test for Condition 2a (surveys completed)

Total Completed Landscape Surveys Reported through Credit for Surveys Completed Prior to Implementation of Reporting Database
 Total + Credit
 CII Accounts in Base Year 3,845
 RU Survey Coverage as a % of Base Year CII Accounts
 Coverage Requirement by Year of Implementation per Exhibit 1 6.3%
 RU on Schedule to Meet 10 Year Coverage

Requirement NO

Test for Condition 2b (mixed use budget or meter retrofit program)

<u>Report Year</u>	<u>Report Period</u>	<u>BMP 5 Implementation Year</u>	<u>Agency has mix-use budget program</u>	<u>No. of mixed-use budgets</u>
1999	99-00	1	NO	
2000	99-00	2	NO	
2001	01-02	3	NO	
2002	01-02	4	NO	
2003	03-04	5	NO	
2004	03-04	6	NO	

<u>Report Year</u>	<u>Report Period</u>	<u>BMP 4 Implementation Year</u>	<u>No. of mixed use CII accounts</u>	<u>No. of mixed use CII accounts fitted with irrig. meters</u>
1999	99-00	1	2,751	
2000	99-00	2	2,793	
2001	01-02	3	2,463	
2002	01-02	4	2,517	
2003	03-04	5	2,849	
2004	03-04	6	2,871	

Test for Condition 3

<u>Report Year</u>	<u>Report Period</u>	<u>BMP 5 Implementation Year</u>	<u>RU offers financial incentives?</u>	<u>No. of Loans</u>	<u>Total Amt. Loans</u>
1999	99-00	1	NO		
2000	99-00	2	NO		
2001	01-02	3	NO		
2002	01-02	4	NO		
2003	03-04	5	NO		
2004	03-04	6	NO		

<u>Report Year</u>	<u>Report Period</u>	<u>No. of Grants</u>	<u>Total Amt. Grants</u>	<u>No. of rebates</u>	<u>Total Amt. Rebates</u>
1999	99-00				
2000	99-00				
2001	01-02				
2002	01-02				
2003	03-04				
2004	03-04				

BMP 5 COVERAGE STATUS SUMMARY:

Water supplier has not met one or more coverage requirements for this BMP.

BMP 06 Coverage: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:
City of Hayward

Reporting Period:
03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one condition to comply with BMP 6.

Condition 1: Offer a cost-effective financial incentive for high-efficiency washers if one or more energy service providers in service area offer financial incentives for high-efficiency washers.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 6 Implementation Year</u>	<u>Rebate Offered by ESP?</u>	<u>Rebate Offered by RU?</u>	<u>Rebate Amount</u>
1999	99-00	1	YES	NO	
2000	99-00	2	YES	NO	
2001	01-02	3	YES	NO	
2002	01-02	4	YES	YES	75.00
2003	03-04	5	YES	YES	75.00
2004	03-04	6	YES	YES	75.00

<u>Year</u>	<u>Report Period</u>	<u>BMP 6 Implementation Year</u>	<u>No. Rebates Awarded</u>	<u>Coverage Met?</u>
1999	99-00	1		NO
2000	99-00	2		NO
2001	01-02	3		NO
2002	01-02	4	146	YES
2003	03-04	5	450	YES
2004	03-04	6	85	YES

BMP 6 COVERAGE STATUS SUMMARY:

Water supplier is meeting coverage requirements for this BMP.

BMP 07 Coverage: Public Information Programs

Reporting Unit:

Reporting Period:

City of Hayward

03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one condition to comply with BMP 7.

Condition 1: Implement and maintain a public information program consistent with BMP 7's definition.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 7 Implementation Year</u>	<u>RU Has Public Information Program?</u>
1999	99-00	2	YES
2000	99-00	3	YES
2001	01-02	4	YES
2002	01-02	5	YES
2003	03-04	6	YES
2004	03-04	7	YES

BMP 7 COVERAGE STATUS SUMMARY:

Water supplier is meeting coverage requirements for this BMP.

BMP 08 Coverage: School Education Programs

Reporting Unit:

Reporting Period:

City of Hayward

03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one condition to comply with BMP 8.

Condition 1: Implement and maintain a school education program consistent with BMP 8's definition.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 8 Implementation Year</u>	<u>RU Has School Education Program?</u>
1999	99-00	2	NO
2000	99-00	3	NO
2001	01-02	4	NO
2002	01-02	5	NO
2003	03-04	6	NO
2004	03-04	7	NO

BMP 8 COVERAGE STATUS SUMMARY:

Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 9/2

BMP 09 Coverage: Conservation Programs for CII Accounts

Reporting Unit:

City of Hayward

Reporting Period:

03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet three conditions to comply with BMP 9.

Condition 1: Agency has identified and ranked by use commercial, industrial, and institutional accounts.

Condition 2(a): Agency is on track to survey 10% of commercial accounts, 10% of industrial accounts, and 10% of institutional accounts within 10 years of date implementation to commence.

OR

Condition 2(b): Agency is on track to reduce CII water use by an amount equal to 10% of baseline use within 10 years of date implementation to commence.

OR

Condition 2(c): Agency is on track to meet the combined target as described in Exhibit 1 BMP 9 documentation.

Test for Condition 1

Year	Report Period	BMP 9 Implementation Year	Ranked Com. Use	Ranked Ind. Use	Ranked Inst. Use
1999	99-00	1	NO	NO	NO
2000	99-00	2	NO	NO	NO
2001	01-02	3	NO	NO	NO
2002	01-02	4	NO	NO	NO
2003	03-04	5	NO	NO	NO
2004	03-04	6	NO	NO	NO

Test for Condition 2a

	Commercial	Industrial	Institutional
Total Completed Surveys Reported through 2004			
Credit for Surveys Completed Prior to Implementation of Reporting Databases			
Total + Credit			
CII Accounts in Base Year	1,742	1,613	490
RU Survey Coverage as % of Base Year CII Accounts			
Coverage Requirement by Year 6 of Implementation per Exhibit 1	4.2%	4.2%	4.2%
RU on Schedule to Meet 10 Year Coverage Requirement	NO	NO	NO

Test for Condition 2a

<u>Year</u>	<u>Report Period</u>	<u>BMP 9 Implementation Year</u>	<u>Performance Target Savings (AF/yr)</u>	<u>Performance Target Savings Coverage</u>	<u>Target Savings Coverage Requirement</u>	<u>Coverage Requirement Met</u>
1999	99-00	1			0.5%	NO
2000	99-00	2			1.0%	NO
2001	01-02	3			1.7%	NO
2002	01-02	4			2.4%	NO
2003	03-04	5			3.3%	NO
2004	03-04	6			4.2%	NO

Test for Condition 2c

Total BMP 9 Surveys + Credit
 BMP 9 Survey Coverage
 BMP 9 Performance Target Coverage
 BMP 9 Survey + Performance Target Coverage
 Combined Coverage Equals or Exceeds Coverage Requirement? NO

BMP 9 COVERAGE STATUS SUMMARY:
Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 9/2

BMP 11 Coverage: Conservation Pricing

Reporting Unit:

City of Hayward

Reporting Period:

03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one condition to comply with BMP 11.

Agency shall maintain rate structure consistent with BMP 11's definition of conservation pricing. Implementation methods shall be at least as effective as eliminating non-conserving pricing and adopting conserving pricing. For signatories supplying both water and sewer service, this BMP applies to pricing of both water and sewer service. Signatories that supply water but not sewer service shall make good faith efforts to work with sewer agencies so that those sewer agencies adopt conservation pricing for sewer service.

a) Non-conserving pricing provides no incentives to customers to reduce use. Such pricing is characterized by one or more of the following components: rates in which the unit price decreases as the quantity used increases (declining block rates); rates that involve charging customers a fixed amount per billing cycle regardless of the quantity used; pricing in which the typical bill is determined by high fixed charges and low commodity charges.

b) Conservation pricing provides incentives to customers to reduce average or peak use, or both. Such pricing includes: rates designed to recover the cost of providing service; and billing for water and sewer service based on metered water use. Conservation pricing is also characterized by one or more of the following components: rates in which the unit rate is constant regardless of the quantity used (uniform rates) or increases as the quantity used increases (increasing block rates); seasonal rates or excess-use surcharges to reduce peak demands during summer months; rates based upon the longrun marginal cost or the cost of adding the next unit of capacity to the system.

Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>RU Employed Non Conserving Rate Structure</u>	<u>RU Meets BMP 11 Coverage Requirement</u>
1999	99-00	NO	YES
2000	99-00	NO	YES
2001	01-02	NO	YES
2002	01-02	NO	YES
2003	03-04	NO	YES
2004	03-04	NO	YES

BMP 11 COVERAGE STATUS SUMMARY:

Water supplier is meeting coverage requirements for this BMP.

Reported as of 9/2

BMP 12 Coverage: Conservation Coordinator

Reporting Unit:

City of Hayward

Reporting Period:

03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

Agency shall staff and maintain the position of conservation coordinator and provide support staff as necessary.

Test for Compliance

<u>Report Year</u>	<u>Report Period</u>	<u>Conservation Coordinator Position Staffed?</u>	<u>Total Staff on Team (incl. CC)</u>
1999	99-00	YES	1
2000	99-00	YES	1
2001	01-02	YES	1
2002	01-02	YES	1
2003	03-04	YES	1
2004	03-04	YES	1

BMP 12 COVERAGE STATUS SUMMARY:

Water supplier is meeting coverage requirements for this BMP.

BMP 13 Coverage: Water Waste Prohibition

Reporting Unit:

Reporting Period:

City of Hayward

03-04

MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period? No

An agency must meet one condition to comply with BMP 13.

Implementation methods shall be enacting and enforcing measures prohibiting gutter flooding, single pass cooling systems in new connections, non-recirculating systems in all new conveyer car wash and commercial laundry systems, and non-recycling decorative water fountains.

Test for Condition 1

Agency or service area prohibits:

Year	Gutter Flooding	Single-Pass Cooling Systems	Single-Pass Car Wash	Single-Pass Laundry	Single-Pass Fountains	Other	RU has ordinance that meets coverage requirement
1999	yes	no	yes	no	no	yes	NO
2000	yes	no	yes	no	no	yes	NO
2001	yes	no	yes	no	no	yes	NO
2002	yes	no	yes	no	no	yes	NO
2003	yes	no	yes	no	no	yes	NO
2004	yes	no	yes	no	no	yes	NO

BMP 13 COVERAGE STATUS SUMMARY:

Water supplier has not met one or more coverage requirements for this BMP.

Reported as of 9/2

BMP 14 Coverage: Residential ULFT Replacement Programs

Reporting Unit: **City of Hayward**

MOU Exhibit 1 Coverage Requirement

A Reporting Unit (RU) must meet one of the following conditions to be in compliance with BMP 14.

Condition 1: Retrofit-on-resale (ROR) ordinance in effect in service area.

Condition 2: Water savings from toilet replacement programs equal to 90% of Exhibit 6 coverage requirement.

An agency with an exemption for BMP 14 is not required to meet one of the above conditions. This report treats an agency with missing base year data required to compute the Exhibit 6 coverage requirement as out of compliance with BMP 14.

Status: Water supplier has not met one or more coverage requirements for this BMP. as of 2004

<u>Coverage Year</u>	<u>BMP 14 Data Submitted to CUWCC</u>	<u>Exemption Filed with CUWCC</u>	<u>ROR Ordinance in Effect</u>	<u>Exhibit 6 Coverage Req'mt (AF)</u>	<u>Toilet Replacement Program Water Savings* (AF)</u>
1998	No			98.05	
1999	Yes	No	No	280.35	
2000	Yes	No	No	534.68	3.96
2001	Yes	No	No	850.20	14.54
2002	Yes	No	No	1217.33	32.14
2003	Yes	No	No	1627.61	56.57
2004	Yes	No	No	2073.56	80.56
2005	No	No	No	2548.57	
2006	No	No	No	3046.86	
2007	No	No	No	3563.31	

*NOTE: Program water savings listed are net of the plumbing code. Savings are cumulative (not annual) between 1991 and the given year. Residential ULFT count data from unsubmitted forms are NOT included in the calculation.

BMP 14 COVERAGE STATUS SUMMARY:

Water supplier has not met one or more coverage requirements for this BMP.