



CITY OF  
**HAYWARD**  
HEART OF THE BAY

**CITY COUNCIL SUSTAINABILITY COMMITTEE MEETING**

Hayward City Hall – Conference Room 2A

777 B Street, Hayward, CA 94541-5007

*Mission Statement:*

*Make Hayward a more sustainable community in order to ameliorate negative impacts of climate change, conserve natural resources and promote a clean environment.*

November 4, 2009

4:30 p.m. – 6:00 p.m.

**A G E N D A**

- I. Call to Order
- II. Roll Call
- III. Public Comments: *(Note: For matters not otherwise listed on the agenda, the Committee welcomes public comments under this section but is prohibited by State Law from discussing items not listed on the agenda. Items brought up under this section will be taken under consideration and referred to staff for follow-up as appropriate. Speakers will be limited to 5 minutes each; organizations represented by more than one speaker are limited to 5 minutes per organization. All public comments are limited to this time period on the Agenda.)*
- IV. Approval of Minutes of October 7, 2009
- V. Recycled Water Project Update  
Robert Bauman, Public Works Director
- VI. Water Conservation: Current Programs and New Requirements  
Robert Bauman, Public Works Director
- VII. Monthly Meeting Topics
- VIII. General Announcements and Information Items from Staff
- IX. Committee Referrals and Announcements
- X. Next Meeting: Wednesday, December 2, 2009  
Solar and Energy Efficiency Financing Programs Update
- XI. Adjournment



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# Climate Action Plan (CAP)

## Actions for Implementation in FY 2010

Priority <sup>1</sup>	Action	Short Description	Status
High	3.9	offer energy efficiency financing program for commercial buildings	
High	3.7	offer energy efficiency financing program for single-family homes	
High	3.8	offer energy efficiency financing program for multiple-family homes	
High	5.2	offer renewable energy financing program for commercial buildings	
High	2.2	collaborate the state and federal government on policies that promote low-carbon vehicles and low-carbon fuels	On-going
High	2.1	provide incentives for low-carbon vehicles and low-carbon fuels	On-going
High	1.10	align zoning policies to minimize vehicle travel	
Medium	6.3	improve construction and demolition debris program	
Medium	4.2	continue to implement private development green building ordinance for commercial buildings	On-going
Medium	4.1	continue to implement private development green building ordinance for residential buildings	On-going
Medium	6.2	increase participation in food-scrap collection programs	
Medium	6.7	prefer waste management strategies that maximize the useful value of waste streams	
Medium	9.1	create green-portal website	
Medium	9.2	develop and implement plan to engage residents in emissions reductions activities	
Medium	9.3	develop and implement plan to engage businesses in emissions reductions activities	
Low	6.1	increase participation in recycling programs	
Low	5.1	offer renewable energy financing program for residential buildings	
Low	5.4	increase portion of electricity provided by renewable energy	On-going
Low	6.6	encourage waste reduction and promote recycling participation at multi-family properties	On-going
Low	1.5	continue to implement bike master-plan	On-going
Low	1.9	encourage high density, mixed-use, smart-growth development in areas near public transit stations	On-going

<sup>1</sup> Priority rankings are based on the calculated rankings presented in the Climate Action Plan (Table 1 in the Executive Summary).

CITY COUNCIL SUSTAINABILITY COMMITTEE MEETING  
Hayward City Hall – Conference Room 2A  
777 B Street, Hayward, CA 94541-5007

October 7, 2009  
4:30 p.m. – 6:00 p.m.

**MEETING MINUTES**

I. Call to Order – Meeting called to order at 4:32 p.m. Mayor Sweeney welcomed everyone.

II. Roll Call

**Members:**

- Michael Sweeney, Mayor
- Olden Henson, Council Member
- Bill Quirk, Council Member
- Julie McKillop, Planning Commissioner (Absent)
- Al Mendall, Planning Commissioner
- Marvin Peixoto, Planning Commissioner
- Doug Grandt, Keep Hayward Clean and Green Task Force (KHCG)

**Staff:**

- Fran David, Assistant City Manager
- David Rizk, Development Services Director
- Robert Bauman, Public Works Director
- Erik Pearson, Senior Planner
- Debbie Summers, Senior Secretary (recorder)

**Others:**

- Simon Wong, Tri-City Voice Newspaper

III. Public Comments-

None

IV. Approval of Minutes of July 1, 2009 and September 2, 2009. – Minutes approved

V. Update on Energy Efficiency and Conservation Strategy (required as part of Energy Efficiency and Conservation Block Grant (EECBG) application)

Development Services Director, David Rizk, deferred item to Senior Planner, Erik Pearson to define what the strategies are going to entail. Mr. Rizk also stated the focus is going to be on the Climate Action Plan (CAP) and laying out the process for these actions and implementation strategies in the EECBG application.

Mr. Pearson summarized staff's report on the preparation of the EECBG strategy document, which is required as part of the application to the Department of Energy (DOE).

Mr. Pearson also noted that even though the CAP is not discussed in the report, we are working on a few minor modifications as a result of the City Council's action. We expect to have the final revised document distributed to City Council members and Planning Commissioners by the end of the month.

Mr. Pearson also stated that we plan to get the request for qualifications for the Sustainability Coordinator out by the end of the month, interview in December and get somebody in place by January. That Coordinator will be implementing the activities and actions as identified in the Strategy document and in the CAP. Plus, that person will also be in charge of coordinating report preparation for this Committee.

Mr. Pearson also stated that as far as the Green Packages, he attended a technical advisory group meeting a couple weeks ago and will be attending another one in a week. He said that representatives from 14 cities are meeting to provide some direction on the technical aspect of the Green Packages. Stopwaste.org is coordinating that and they just released two RFP's, one for technical assistance and one for marketing and outreach. They expect to have consultants lined up by the end of October. On the technical side, they are going to be requesting assistance on providing specifications for efficiency upgrades that people can do. There will be different categories, a basic package, an advanced package and a renewal energy package. They will ask the consultant to help with financing assistance, as well as providing training to contractors and real estate professionals and a tracking program.

Commissioner Peixoto asked that since we will be hiring a Coordinator, does this mean that it will not be a permanent position. Erik responded that it will be a consultant-type position and we only have funding for the position for three years. Commissioner Peixoto then asked if the option would be available in the future. Erik said it could be an in-house position on a temporary basis but by allowing a firm to apply, we may have additional resources at our disposal. Mr. Rizk stated that the City needs this position on a permanent basis, but the challenge is and always will be the funding. Mr. Rizk also stated that this is something we will look at very carefully and extensively during the next two to three years to try to establish a permanent source of funding for that position, because the City does need it.

Councilmember Henson inquired about the estimated costs and if we have a revolving loan programs for businesses and if there is a cap on those funds for each business. Mr. Pearson responded that there is not, but it will be developed as we prepare the Strategy document. There are activity worksheets that have to be submitted to DOE and it will be included in them.

Councilmember Henson asked what kind of upgrades we are talking about and mentions that from what he perceives they could be costly and he is concerned that there may not be enough money in that category. He asked if the \$272,000 is a DOE break down or did we come up with this formula. Mr. Rizk responded that this is what we came up with.

He stated that there is the Sustainability Coordinator, the contribution to Stopwaste.org's Green Packages, and the LED lights. That it is limited funding and that is why we ran it by the Committee before we finalize the grant application. There are certainly things that are costly, but there are also alternatives they are not as costly. For instance, there are things you can do that are cost effective, such as insulation and we are hoping that this program and funds can be used with other existing programs.

Councilmember Henson inquired about the timetable for LED streetlights near South Hayward BART Station. Mr. Rizk responded that due to the timeframe of the Wittek/Montana project, it would be towards the end of the three years that is allowed for the project.

Councilmember Henson also commented that he knew the Mayor had a program with PG&E and they did energy audits. He asked if we could offset PG&E steps and have some audits that may not necessitate the use of all the \$250,000 and use some of that elsewhere and have a different formula. David responded that we can see what the flexibility is with DOE and he envisions that most of those will be residential projects, versus the commercial projects that PG&E has done. He said if the Committee has a desire for us to try to move funds around and focus on certain areas, then we could see what we can do.

Councilmember Quirk questioned the breakdown of the 1.3 million for the upgrades for the retrofits and energy audit. He asked how the money would be awarded to qualifying residents from the three categories. He also stated that there has to be some sort of mechanism or system that costs money and since not all the money is going to be given to the actual energy audits, how will we foresee the administrative aspect of all three of the energy audits and retrofit upgrades. He also asked what percentage is set aside and how could people qualify. Mr. Rizk responded that we still have to determine this. He stated that we are going to try as much as possible in terms of the revolving loan program within the City to utilize the structure of the City's existing loan programs to minimize the administrative cost as much as possible. The Sustainability Coordinator will also help manage and develop the programs. It is also realistic to expect some administrative cost but we will minimize them so those dollars will actually go to the programs.

Doug Grant, Keep Hayward Clean and Green Task Force asked if anybody at this table could qualify to have their houses audited and what criteria would we use to judge it. Mr. Rizk responded that we have not developed the criteria yet. He also said the reason we put the money in the audits is to give people an idea of what they can do. Some of the criteria that we will develop in determining who gets the money to do the retrofits will be tied to who has done an audit. We want to be as compressive as possible with these limited funds and reach out to as many people as possible to do an energy audit. Even if they chose not to use some of the funds to pay for some of the upgrades, they will have a plan of what to do.

Commissioner Quirk asked about advertising outreach and letting people know that this is available. Mr. Rizk responded that the Green Packages Program at Stopwaste.org is also going to entail marketing and outreach that we are hoping to utilize. He noted that it

is going to take time and needs to be coordinated. Hopefully, we will be able to leverage funds from the County's PACE program and Stopwaste.org. We can utilize some of the outreach, marketing and training of the Green Packages programs, etc. so it does not have to be all on this dime.

Commissioner Mendall asks about the Sustainability Coordinator position. He stated that he would like it to be someone who is here all the time, hopefully a full time City employee. Mr. Rizk responded that our objective is that we want it to be someone who is here all the time not just part time, whether it is an outside consultant or temporary employee. The main objective is to get these programs identifying the CAP implemented. The Coordinator being responsible for that is precedence over someone being here full time. Utilizing the limited amount of funds, we are going to select a consultant that can get as many of these programs implemented as possible. That is going to be the first criteria; the second one is presence here.

Commissioner Mendall says he still thinks that, with this economy, we could get someone who will qualify for the position.

Councilmember Henson agrees with Commissioner Mendall. Stopwaste.org has been interviewing a lot of people very recently for a lot of things and stated that there are some very specialized people with some very specialized training out there in sustainability. It seems to be a hot button right now and he thinks that there are enough issues surrounding that to keep a person busy beyond the three years, and be sure that the person is focused on what we are doing. The Coordinator also would be involved in going after all the grants and other financing. That would be full time in itself, so he likes the in-house idea, but he could live with the consultant, but as an in-house person. Also, if we do have someone for three years we could build up knowledge that we could keep versus the consultant is going to go away in a couple of years. Mr. Rizk responded that people jump from the private sector to the government sector and vice versa all the time. Mr. Rizk reiterated that he wants somebody in here and a consultant can work here if they choose to on certain days of the week, but again the focus is going to be implementation of the strategies that are related to the CAP's actions. He said the Council adopted the CAP as a policy document and that we are moving to the implementation stage. We certainly hope that the Coordinator can attend meetings and apply for grants, and those duties are going to keep somebody or a firm pretty busy.

#### VI. Monthly Meeting Topics

Commissioner Mendall requested that a Styrofoam ban be added to the January meeting.

Mayor Sweeny said that if we have time on January 6, 2010, he would like to start the discussion on plastic bags and Styrofoam. He also would like to have an outline of issues and changes on legal issues regarding putting together an ordinance for bags and Styrofoam.

#### VII. General Announcements and Information Items from Staff –

#### VIII. Committee Referrals and Announcements –

Mr. Rizk stated that the Bay Conservation and Development Commission (BCDC) just released its draft plan, which includes a new section on climate change policies and findings. They will have a public meeting to adopt these on November 5, 2009. Mr. Rizk also informed the Committee that he would send them an electronic copy of the draft. Councilmember Quirk summarized the draft plan for the Committee stating that the focus was on sea level rise and that it is going to happen.

Next Meeting: Wednesday, November 4, 2009

Presentation on Water Recycling  
Water Use Efficiency Ordinances

Adjournment – Meeting adjourned at 5:15 p.m.



DATE: November 4, 2009  
TO: Sustainability Committee  
FROM: Director of Public Works  
SUBJECT: Recycled Water Project Update

### **RECOMMENDATION**

That the Committee reviews and comments on this report.

### **BACKGROUND**

The Capital Improvement Program (CIP) includes a project to evaluate the potential for and cost of utilizing recycled water for certain uses, such as irrigation and appropriate industrial applications. To that end, staff has been working with RMC Water and Environment, a consulting firm based in Walnut Creek, to complete a Recycled Water Facility Plan to assess the market potential for recycled water in Hayward, analyze the quality and quantity of recycled water that would be needed to serve customers, identify the most feasible distribution system, and prepare a cost estimate and construction financing plan. An important driver for this effort is Calpine's plan to develop the Russell City Energy Center (RCEC), which includes construction of treatment facilities to produce recycled water. The City was awarded a \$75,000 planning grant from the State Water Resources Control Board to help with the cost of the Facility Plan, and Staff has been involved in reviewing the Plan for completeness and feasibility.

### **DISCUSSION**

This report will summarize for the Committee the key points and implementation strategies developed in the Facilities Plan.

*Recycled Water Program Objectives* - The primary objective of implementing a Recycled Water Project would be to maximize recycled water as a supplemental non-potable water supply because of the continuing pressure on potable water sources throughout the state. Currently, Hayward purchases 100% of its water supply from the San Francisco Public Utilities Commission (SFPUC). This water supply is governed by two documents. One of these documents is the individual supply Agreement between the City of Hayward and the San Francisco Water Department that primarily addresses the quantity of water to be delivered to Hayward. This Agreement was approved in 1962. It has no expiration date, nor does it contain a pre-set water supply limitation during non-drought years. The second document is the Water Supply Agreement between SFPUC and all of its wholesale customers, which primarily addresses issues of common concern, such as the setting of wholesale rates and cost allocation. The Committee will recall that the City Council approved a new Water Supply Agreement in

July, which replaced the earlier 1984 Settlement Agreement and Master Water Sales Contract that expired earlier in June.

The new Water Supply Agreement subjects all wholesale customers, including Hayward to a supply limitation through 2018 and possibly beyond, in that as part of the new Agreement, the SFPUC imposed an interim supply limitation of 184 million gallons per day (MGD) through 2018 to respond to the environmental community's desires not to take more water from the Tuolumne River. While this was a less-than-desirable provision, staff determined that the Water Supply Agreement contained more positive aspects than negative. Therefore, it was recommended, and the City Council concurred, that the Agreement be approved despite the supply limitation. This supply limitation is now in effect.

In order to live within the system-wide 184 MGD limitation, every agency's water supply, including Hayward's, will be subject to an individual limitation through at least 2018. The division of the 184 MGD among the 26 wholesale customers, including Hayward, has not yet been determined. The Agreement has a deadline of December 2010 for the establishment of individual supply limitations. It is uncertain what, if any, additional supplies will be available from SFPUC after 2018. Demand projections through 2035 indicate that there may be a significant gap between demand and available supply. While staff does not believe that the long-term water supply situation would compel Hayward to develop other water sources, it is prudent to explore alternative supplies, when opportunities for partnership with other entities, such as Calpine, are presented. Recycled water is a sustainable, drought-proof water supply that can assist the City in a modest way in meeting anticipated future water demand as a result of growth in the residential and industrial sectors of the community.

Additionally, the cost of potable water is expected to increase significantly as the San Francisco Public Utilities Commission (SFPUC) implements the regional water system improvement program, making the cost of providing recycled water more competitive than it may have been in the past. Current estimates are that the wholesale cost of potable water will approach \$1,500 per acre foot by 2015. In comparison, the estimated annualized cost of producing and delivering high quality recycled water is about \$800 per acre foot. This cost factor substantially increases the financial feasibility of a recycled water project.

As mentioned in the summary, an important factor in the consideration of the Recycled Water Project is the fact that Calpine is developing the Russell City Energy Center (RCEC), a power generation facility that will be located on the property adjacent to the City's Water Pollution Control Facility (WPCF) and will use a significant amount of recycled water. Calpine is obligated to use tertiary treated recycled water at this facility, and will be constructing treatment facilities necessary to produce the recycled water. This will provide an opportunity for the City to obtain surplus tertiary treated wastewater for distribution to other customers at a relatively lower cost than would be the case if the City were to construct the treatment facilities.

Recycled Water Facilities - The major components of a recycled water project are: 1) a treatment facility to provide tertiary treatment to bring the wastewater to an acceptable level for reuse; 2) pump station and distribution pipelines to deliver the recycled water to customers, including lateral lines from the main distribution pipeline into the properties; and 3) a storage tank to ensure supply reliability. Under their existing plans, Calpine would construct the

treatment and storage facilities. The City would be responsible for constructing a pump station and distribution system to provide recycled water to other customers in addition to Calpine.

Two alternative distribution systems were evaluated for delivering recycled water beyond the Calpine site: 1) distribution of recycled water to twenty or so major industrial customers located within an approximately two-mile radius of the WPCF; and 2) distribution of recycled water to two large customers in the eastern hills of Hayward: the California State University campus and Stonebrae Golf Course, as well as other smaller users. The first alternative is preferable because it requires significantly less investment by the City in construction and operating costs, and because there is potential for additional customers as Whitesell Road is developed. The estimated cost of Alternative 1 would be \$10 million; whereas the cost for Alternative 2 could be close to twice that amount, due mainly to the longer pipeline, for about a 10% increased in recycled water yield. Additionally, since the second alternative would require pumping the water to high elevations in Hayward, there would not only be significant operating costs involved, but also major energy use which would have high costs.

*Recycled Water Customers* - A market assessment was performed to evaluate the potential recycled water demand within the proposed distribution system. The assessment included outreach to potential industrial customers, as well as the Hayward Unified School District and the Hayward Area Recreation and Park District. Potential industrial customers were contacted by phone to refine the quantity of recycled water that could be utilized at various facilities and to determine whether customers would be agreeable to using recycled water for certain applications, reservations they may have about the quality of the water, and facility retrofits that may be necessary. In general the response from industrial customers was positive. In addition to the telephone contact with potential industrial customers, City staff and the consultants met face-to-face with representatives from HUSD and HARD, since both agencies have several sites within the recommended distribution area. Both agencies recognize the benefits of using recycled water for irrigation, but expressed a need for extensive outreach to both their elected boards and the public to address health and safety concerns.

Based on the market assessment, it is anticipated that the average daily demand for recycled water from target customers other than Calpine will be about 300,000 gallons per day, with a peak demand in the summer months of 500,000 gallons. The recycled water would be utilized mostly for landscape irrigation, with a smaller amount used for industrial purposes, such as cooling. Calpine's average demand is expected to be 3.1 million gallons per day, peaking at 4 million gallons per day.

## **FISCAL IMPACT**

The estimated cost for the project is about \$27 million, with the City's portion being about \$10 million, assuming that necessary cost-sharing agreements with Calpine can be reached. Staff is investigating several financing strategies including federal grants, a State Water Resources Control Board low interest loan, and appropriate user fees. Also, staff believes that the benefits of recycled water use need to be evaluated within the context of a regional water supply and therefore this project may be appropriate for funding assistance from SFPUC. Staff will review these alternatives with the Council and refine the project costs when more information is available and as initiation of the Calpine project gets closer.

If, for any reason, Calpine decides not to construct the RCEC, staff would need to re-evaluate the recycled water project to determine if it would be financially feasible and economically sound for the City to invest in its own tertiary treatment facility. Based on similar projects in other communities, a stand-alone tertiary treatment facility of about a million gallons per day would have a higher per-gallon unit cost because the project would not benefit from the economies of scale of the much larger Calpine facility. Staff estimates that the cost of the treatment facility and ancillary equipment would be in the range of \$4 to \$5 million.

In order to enhance the potential for federal funding, Hayward recently joined the Bay Area Recycled Water Coalition. This organization is comprised of agencies that are pursuing federal funding for recycled water projects, recognizing that a unified effort is more successful than a competitive approach. Some of the other member agencies are the Cities of Palo Alto, Mountain View, Redwood City, and San Jose, as well as public entities such as Dublin San Ramon Services District, Delta Diablo Sanitation District, and Central Contra Costa Sanitary District. Working together, the Coalition was recently successful in securing passage of House Bill 2442, which expanded the number of regional recycled water projects that are eligible for federal grant funds. Staff plans to become an active participant in the Coalition to be sure that Hayward's project is visible and well positioned for federal grant funding. If the City is successful in obtaining federal funding, the grants typically pay for 25% of the project costs.

## NEXT STEPS

The schedule for constructing the treatment facilities and distribution system will depend in large part on Calpine's schedule for the RCEC. At this point, it is anticipated that the Energy Center construction will begin in January 2010 and that operations will be initiated in June 2012. Staff will work with Calpine on this issue to ensure that the changes do not impact WPCF operations. Assuming that the City Council approves the Recycled Water Project, design and construction of the distribution system would be coordinated with Calpine's project to facilitate the delivery of recycled water at the earliest possible date.

Prepared by:



Alex Ameri, Deputy Dir. of Public Works

Recommended by:

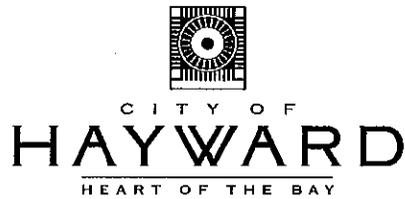


Robert A. Bauman, Director of Public Works

Approved by:



Gregory T. Jones, City Manager



DATE: November 4, 2009  
TO: Sustainability Committee  
FROM: Director of Public Works  
SUBJECT: Water Conservation: Current Programs and New Requirements

## **RECOMMENDATION**

That the Committee reviews and comments on this report.

## **SUMMARY**

Hayward has implemented a number of water conservation programs to encourage customers to reduce water use. An overarching strategy has been the implementation of an increasing block rate structure, which ties the unit cost of water to usage. Aside from the rate structure, the focus of the program has been to reduce indoor water use, outdoor (irrigation) use, and prohibit water waste.

In order to augment the existing water conservation efforts and further reduce water consumption, staff will be proposing new and updated ordinances that would:

- Require the installation of fixtures and appliances that exceed the plumbing code standards for water efficiency in new construction and applicable remodels;
- Adopt an updated water efficient landscape ordinance that meets or exceeds State mandates; and
- Increase the number of prohibited water wasting activities and make the ordinance more visible by adding it to the Municipal Code.

This report has been prepared to provide the Committee with a summary of existing water conservation programming, the purpose and content of the proposed ordinances, the drivers behind them, and the schedule for bringing the ordinances to the City Council for consideration.

## **BACKGROUND**

The City has implemented an active and effective water conservation program. Much of the effort in reducing indoor water use has focused on financial incentives (i.e., rebates) to install water efficient appliances and plumbing fixtures and distribution of low flow devices. The City also adopted a Water Waste Prohibition Ordinance in the early 1990s, largely in response to the

drought that was occurring during that time. Outdoor water use has been addressed mainly through the requirements of the Water Efficient Landscape Ordinance, adopted in 1992, for new developments, and more recently, the Civic Bay-Friendly Landscaping Ordinance, and Environmentally Friendly Landscaping Guidelines for private projects, both of which include water efficiency elements. Other City efforts to reduce outdoor water use include a landscape survey program that provides water use assessments and recommendations by a certified irrigation specialist to customers with large landscaped areas, careful oversight of water usage on City owned properties, and water efficient landscape workshops and classes.

## **DISCUSSION**

*Hayward Water Supply and Existing Constraints* - In order to provide a context for the discussion of water conservation, it may be useful to briefly review Hayward's current water supply situation. Hayward purchases 100% of its water supply from the San Francisco Public Utilities Commission (SFPUC). The source of this water is the Hetch Hetchy Regional Water System. The Committee will recall that the City Council approved a new Water Supply Agreement with SFPUC in July that addresses issues of common concern to all SFPUC wholesale customers, such as the setting of wholesale rates and cost allocation. In addition, Hayward has an individual supply agreement with SFPUC that primarily addresses the quantity of water to be delivered to Hayward. The latter agreement was approved in 1962 and has no expiration date, nor does it contain a predetermined numeric water supply limitation. However, as explained below, the new Agreement subjects Hayward to a "de facto" supply limitation through 2018 and possibly beyond.

SFPUC imposed an interim supply limitation of 184 million gallons per day through 2018, as part of the new Water Supply Agreement, to respond to the environmental community's desires not to take more water from the Tuolumne River than SFPUC has historically taken from the river. This arrangement enabled SFPUC to certify the environmental documents for its massive seismic improvement program and to proceed with constructions of the needed improvements. However, without significant additional conservation, the consumption from all wholesale customers will reach 184 MGD sometime before 2018. In order to live within the system-wide 184 MGD limitation, every agency's water supply, including Hayward, will be subject to an individual limitation, which could be set forth by SFPUC. In the event that the supply limitation is exceeded in a given year on an overall, system-wide basis, agencies that exceed their individual allocation will be subject to significant environmental surcharge fees.

It is uncertain what, if any, additional supplies will be available from SFPUC after 2018. Demand projections through 2035 indicate that there may be a significant gap between demand and available supply. Thus, it is prudent to take steps at this time to reduce demand in conjunction with exploration of alternative supplies. To this end, the Bay Area Water Supply and Conservation Agency (BAWSCA), which is comprised of SFPUC wholesale customers, prepared a Water Conservation Implementation Plan to identify potential conservation measures and to quantify the theoretical water savings that could be achieved from each measure. Among the selected measures is development of model ordinances to address water use efficiency standards for indoor fixtures and appliances and to adopt water efficient landscaping requirements. The City may choose to adopt these or similar ordinances.

There are also efforts at the State level to reduce water consumption throughout California. The Governor has called for a 20% reduction in water use by 2020, and various administrative and legislative efforts are under development to achieve that goal. Two pieces of such legislation will be referenced in this report.

It is important to note that Hayward customers already make very efficient use of water. Hayward's residential per capita usage, which is the most accurate indicator of overall water use, is among the lowest of all agencies that purchase water from SFPUC. Similarly, Hayward's gross per capita use, which includes all business and institutional water consumption, is in the bottom half of the range of SFPUC customers, despite the fact that, unlike many other communities, Hayward has a state university, community college, two hospitals and a significant industrial sector. Thus, it will be a significant challenge to reduce water usage further while encouraging the rehabilitation and enhancement of properties.

### Indoor Water Conservation -

Current Programs - Hayward offers a variety of programs to reduce indoor water use including:

- Rebates of \$150 for the replacement of existing high-use toilets (3.5 to 7 gallons per flush) with high efficiency models that use 1.28 gallons of water per flush
- Rebates of up to \$200 (including PG&E's share) for the purchase of high efficiency clothes washing machines
- Free low-flow devices, such as showerheads and faucet aerators
- Installation of free pre-rinse spray valves for food related businesses
- School education program that includes curriculum, activity books and water conservation kits for approximately 600 fifth grade students annually
- Public outreach and education, including participation in local events and educational water bill inserts

Hayward customers have responded positively to these programs. For example, about 250 rebates have been issued for the installation of high efficiency toilets since the inception of the program in September 2008. (This is in addition to 900 rebates that were issued in the early 2000s for the installation of the then most efficient 1.6 gallon per flush units). The number of rebates issued for the purchase of high efficiency clothes washing machines exceeds 2,000. At least 7,500 water conserving showerheads and faucet aerators have been distributed, including those provided to students as part of the school education program.

While incentive programs and distribution of water conserving hardware will remain the cornerstone of the City's indoor water conservation program and the focus of significant financial investments, it is necessary to pursue other opportunities to reduce water consumption, including mandatory water use efficiency standards, in order to help achieve the expressed desires of the City Council for resource conservation, as well as to live within any limitations imposed by SFPUC.

Proposed Indoor Water Use Efficiency Standards - As mentioned earlier, the City, like other water agencies, is interested in pursuing additional measures to reduce indoor water use. In response to its members' request, BAWSCA has facilitated the development of the indoor water use efficiency standards through a workgroup comprised of agency representatives, including Hayward staff. While the model ordinance is not yet final, sufficient work has been completed to provide the Sustainability Committee with a summary and the recommendation that staff will be making to the City Council regarding this ordinance.

In addition to the work that BAWSCA is facilitating, Senate Bill 407 establishes requirements and timeframes for replacing non-water conserving plumbing fixtures in both residential and non-residential properties. In general, single-family properties will need to comply with the legislation by installing water conserving toilets, showerheads, and faucets by January 1, 2017, and multifamily and commercial properties will need to comply by January 1, 2019. The proposed ordinance would assist in retrofitting some properties ahead of the legislative dates. The legislation applies only to certain types of fixtures, whereas the proposed ordinance will cover a wider range of devices.

The proposed ordinance will generally require the installation of water conserving fixtures and appliances in new construction and in remodeled properties where kitchens and/or bathrooms are affected. The proposed standards will exceed the current plumbing code standards, where applicable, and in most cases will meet or exceed the standards contained in the California Green Building Code. They will also exceed the definition of water-conserving fixtures as used in SB 407. The proposed fixture standards are supported by third-party verification to achieve water savings and are widely available and technically sound.

The following table summarizes the applicable standards:

Fixture	Units	Current Standard	Proposed Standard	
			Residential	Non-Residential
Toilets	gpf	1.6	≤ 1.28	≤ 1.28
Urinals	gpf	1.0	-----	≤ 0.5
Showerheads	gpm	2.5	≤ 2.0	≤ 2.0
Bathroom Faucets	gpm	2.2	≤ 1.5	≤ 0.5
Kitchen Faucets	gpm	2.5	≤ 2.2	≤ 2.2
Clothes Washers	Water Factor	-----	≤ 6.0	≤ 6.0
Dishwashers	gal/cycle	-----	≤ 6.5 or Energy Star	----- Energy Star
Cooling Towers	cycles	-----	≥ 5-10	≥ 5-10
	LSI	-----	≥ 2.5	≥ 2.5
Food Steamers	----	-----	-----	Boilerless and self contained

Fixture	Units	Current Standard	Proposed Standard	
			Residential	Non-Residential
Ice Machines	gal/100 lbs	----	----	≤ 25 Air cooled
Pre-rinse Spray Valves	gpm	1.6	----	≤ 1.15
Automatic vehicle wash facilities	% recycled	----	----	≥ 50%
Commercial Refrigeration	----	----	----	Closed loop or air cooled

The water use efficiency standards would apply to all new construction. Additionally, projects that involve the remodel or improvement of an existing structure would be subject to the standards if the work includes changes to the kitchen or bathroom(s). Since the proposed fixtures and appliances are readily available, it is not expected that the standards would cause hardship or delays for applicants. Development Services and Public Works staff will work closely together to assist building permit applicants in understanding and complying with the new requirements. It is envisioned that a checklist approach will be used to enable applicants to readily see the standards for individual fixtures and to indicate the unit value for each fixture applicable to their project. This will simplify the process for both the applicant and the building inspection staff.

In some cases, applicants may be eligible for rebates for the purchase of water conserving fixtures under the guidelines of the City's programs, notably high efficiency toilets and clothes washing machines. These rebates will help offset the cost of the higher efficiency models, making them more attractive options. Staff will prepare materials to make applicants aware of the rebates.

Outdoor Water Conservation –

Current Programs - The City's commitment to outdoor water conservation is longstanding and wide-ranging. In 1992, the City Council adopted a Water Efficient Landscape Ordinance, which has been enforced by a licensed staff Landscape Architect. More recently, the Council approved a Civic Bay Friendly Landscaping Ordinance and Environmentally Friendly Landscaping Guidelines, both of which include water efficiency elements. All of these documents address landscape requirements for new developments. Assembly Bill 1881, the Water Conservation Landscaping Act of 2006, requires that local agencies adopt an updated Water Efficient Landscape Ordinance, which will be discussed in the next section.

To improve the water use efficiency of existing large landscaped areas, the City recently initiated a landscape survey program to provide water use assessments to property owners with large-sized landscapes, including Hayward Unified School District and Hard Area Parks and Recreation District. Through this program, a certified irrigation specialist reviews the plant materials, irrigation scheduling and efficiency, and other pertinent factors, and prepares a list of comprehensive recommendations that could reduce irrigation water use. Other efforts to reduce outdoor use include careful oversight of water use on City properties, free workshops and classes

for customers, and a variety of electronic and printed materials to help customers design and maintain water efficient landscaping.

Proposed Water Efficient Landscape Ordinance - As noted above, AB 1881 mandates the adoption of an updated Water Efficient Landscape Ordinance. The Department of Water Resources (DWR) was directed to develop a model ordinance to incorporate current knowledge about plant materials, irrigation technologies, climate conditions, and other considerations. Local agencies are required to adopt the State model or an equivalent ordinance by the end of 2009. In addition to DWR, two regional entities have or are in the process of crafting model ordinances that may also be used by the City to comply with the requirements of AB 1881. Hayward staff has been involved in the development of all three versions by providing input and by reviewing, evaluating and providing comments on various drafts.

Stopwaste.org, a program within the Alameda County Waste Management Authority, has developed a Bay Friendly version of the State model ordinance. The Stopwaste.org model ordinance goes beyond the primary goal of water efficiency, addressing such issues as the amount of plant clippings generated, as well as pest management and fertilizing practices, and their impact on storm runoff. Concurrently, BAWSCA has been facilitating the development of a model ordinance for its member agencies. While BAWSCA's draft is not expected to be released until early November, staff is familiar enough with major elements of the BAWSCA option to weigh its merits against the DWR and the Stopwaste.org models.

Staff has completed a review of the DWR and Stopwaste.org ordinances, and BAWSCA's ordinance outline, to evaluate which landscape ordinance would best serve the City's goals of sustainability, water conservation, and waste reduction. With these goals in mind, staff plans to recommend adopting the Bay-Friendly Water Efficient Landscape Ordinance, with modifications to include the City's current requirements and recommended water efficient practices. All of the proposed modifications were reviewed and approved by Stopwaste.org staff, and thus the ordinance could be called the City of Hayward Bay-Friendly Water Efficient Landscape Ordinance. In staff's opinion, the combination of the Bay Friendly version, augmented with City-specific provisions, offers the most holistic and sustainable approach to landscaping and is consistent with the City Council's sustainability goals.

Based on discussions so far with BAWSCA, it is anticipated that the BAWSCA model ordinance will be similar to the State model, with some modifications to address landscaping on smaller properties. Although the draft has not yet been released, it is staff's opinion that the requirements for smaller properties remain ambiguous and that resulting water savings will be difficult to quantify. However, if the final version of the BAWSCA model contains provisions that would enhance the City's ordinance and benefit Hayward, staff would return to the Council with recommended amendments after January 1.

Before reviewing the major components of the recommended new ordinance, it may be useful to summarize current requirements. The City's existing Water Efficient Landscape Ordinance generally applies to all permitted projects with 2,500 square feet or more of new or renovated irrigated landscaped area, except for homeowner-provided landscaping for a single-family lot or for a private yard within a multi-family development and special landscape projects. Some

exemptions exist for special circumstances. The planting of turf is limited to 50% on front yard landscaping and is prohibited on slopes exceeding 15%. At least two inches of wood chip or bark mulch is required in planting areas. Lastly, the applicant must submit a landscape water budget (except for single-family homes), estimated landscape water use statement, and irrigation schedule.

The State Model Water Efficient Landscape Ordinance adds or modifies requirements to the existing ordinance. The major changes most applicable to Hayward are:

- Applies to 5,000 square feet or more irrigation landscaped areas for a single-family residential development (currently, homeowner-provided landscaping is exempt), in addition to the projects covered in the City's existing ordinance
- Water-conserving plant and turf species, appropriate to local conditions, must be selected
- No turf allowed on slopes greater than 25% or in areas less than 8 feet in width
- Plants with similar watering needs are to be grouped together
- Swimming pools and spas are required to have covers
- Greater irrigation efficiency
- Irrigation audit, survey and water use analysis by a certified irrigation auditor for new or renovated projects installed after January 1, 2010 or for existing landscaped areas that are over one acre in size

The Bay-Friendly Water Efficient Landscaping Ordinance, modified with City-specific provisions, would add the following requirements to enhance the sustainability and water conservation benefits:

- Applies to all projects that require Planning Division approval regardless of the size threshold
- All required landscape and irrigation plans are to be prepared by a licensed landscape architect and a certified irrigation professional
- 75% of non-turf plants to be California native, Mediterranean, or other climate adapted species that require occasional or no water once established
- Three inches of certified organic compost to be used for soil amendment
- Turf is not allowed on slopes greater than 10% where the toe of the slope is adjacent to an impermeable hardscape
- Three inches of recycled chipped wood, organic compost or green waste to be used for mulch
- Greater irrigation efficiency than proposed in the State model

In staff's opinion, the combination of the Bay Friendly version, augmented with City-specific provisions, offers the most holistic and sustainable approach to landscaping and is consistent with the City Council's sustainability goals.

## Water Waste Prohibition -

Current Programs - In response to the drought conditions experienced in the later 1980s and early 1990s, the Hayward City Council adopted an uncodified Water Waste Prohibition Ordinance in 1993 to restrict or ban certain non-essential, wasteful activities, including:

- Use of water through a broken or defective plumbing or irrigation system
- Water use that result in flooding or runoff to gutters or streets
- Use of water through a hand-held hose for washing of vehicles or any other purpose, unless the hose is equipped with an automatic shutoff nozzle

The existing ordinance also recommends, but does not require, the use of recycled water for commercial car washes.

Proposed Modifications - Staff is proposing that the existing ordinance be updated to include additional requirements and prohibitions as follows:

- Require use of recirculated water in decorative fountains and other decorative water devices
- Prohibition of single-pass cooling systems
- Require use of recirculated water in commercial vehicle washing facilities and commercial laundries

The new ordinance would be codified and added to Chapter 11 of the Municipal Code. Although the current uncodified ordinance is equally enforceable, this action would make the water waste prohibitions more accessible and visible to the public.

## **FISCAL IMPACT**

While some additional staff time may be required to educate applicants on the new requirements and to ensure they have been met, there will be no direct impact to the General Fund or the Water Enterprise Fund as a result of adopting the ordinances. Building Inspection staff would take the lead on enforcing the indoor water use efficiency standards as part of the normal plan review process, with, at least, initial support and assistance from Utilities staff. It is anticipated that the City's Landscape Architect, who is currently funded in the Water Fund, will review and approve landscape plans involving 5,000 square feet or more of irrigated landscape area, and Planning staff will review plans that contain less landscaping.

While the ordinances in and of themselves are not anticipated to directly impact the General Fund, the City is currently, and will continue, investing large sums for water conservation in order to meet its share of the water reduction targets. Costs will be borne by the Water Fund and will be incorporated into water rates. The most significant cost items are rebates for high efficiency washing machines and toilets. For example, the annual target for high efficiency toilet replacements in Hayward is about 700 rebates. At a per-rebate cost of \$150, plus administrative and marketing expenses, the annual cost to the City will be over \$100,000 for this program

alone. Staff will continue to look for opportunities to partner with other entities, both regionally and at the State level, to make water conservation as cost effective as possible.

**NEXT STEPS**

In the interest of efficiency, staff intends to bring the Indoor Water Use Efficiency, Water Efficient Landscape, and Water Waste Prohibition Ordinances to City Council for consideration at the same meeting, currently anticipated for December 1. The timing of this action may need adjustment depending on how quickly BAWSCA finalizes the model ordinance for indoor water use. If City Council approves the ordinances, they would be effective thirty days after adoption.

Staff would develop informational handouts and work closely with customers to educate them about the requirements of the Indoor Water Use Efficiency, Water Efficient Landscape and Water Waste Prohibition Ordinances. and to make them aware of all appropriate rebates and financial incentives.

Prepared by:



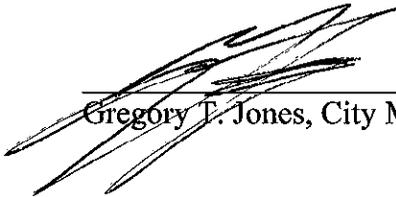
Alex Ameri, Deputy Dir. of Public Works

Recommended by:

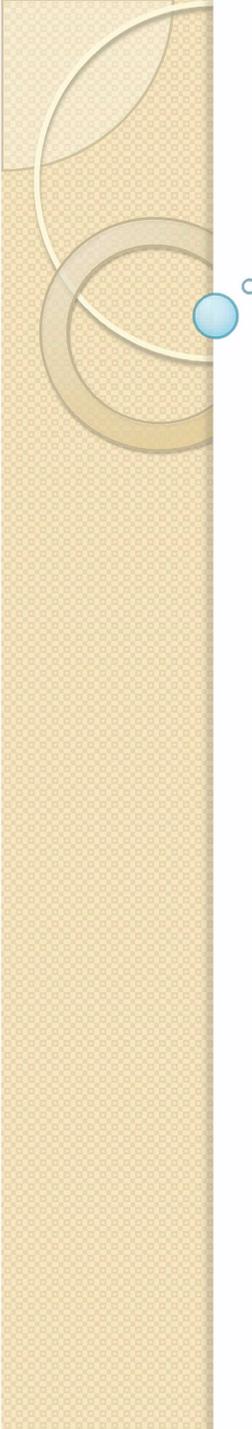


Robert A. Bauman, Director of Public Works

Approved by:



Gregory F. Jones, City Manager



# Recycled Water Project Update

Council Sustainability Committee

November 4, 2009



# Why Recycled Water

- Sustainable water supply, unaffected by drought
- Need in Hayward for irrigation and cooling system water – approved recycled water uses
- Increasing cost of potable water – currently \$715/acre foot to \$1,500/acre foot in 2015
- Potable water supply limitations
- Calpine partnership opportunity
- Increasingly stringent wastewater discharge limitations
- Opportunities for outside funding



# Recycled Water Planning

- Feasibility Study – 2007
  - Performed preliminary market and recycled water supply assessment
  - Developed conceptual distribution systems
  - Confirmed potential for cost effective recycled water project
- Recycled Water Facility Plan - 2009
  - Refined market assessment
  - Evaluated distribution system alternatives and treatment options
  - Developed planning level designs and cost estimates
  - Identified possible funding sources



# Recycled Water Facilities

- Major Components
  - Tertiary treatment facility
  - Storage
  - Distribution Pipelines
  - User Connections
- For planning purposes, staff assumed that Calpine would pay for treatment and storage facilities, and the City would pay for distribution and user connections
- Final cost share agreement to be negotiated



# Treatment and Storage

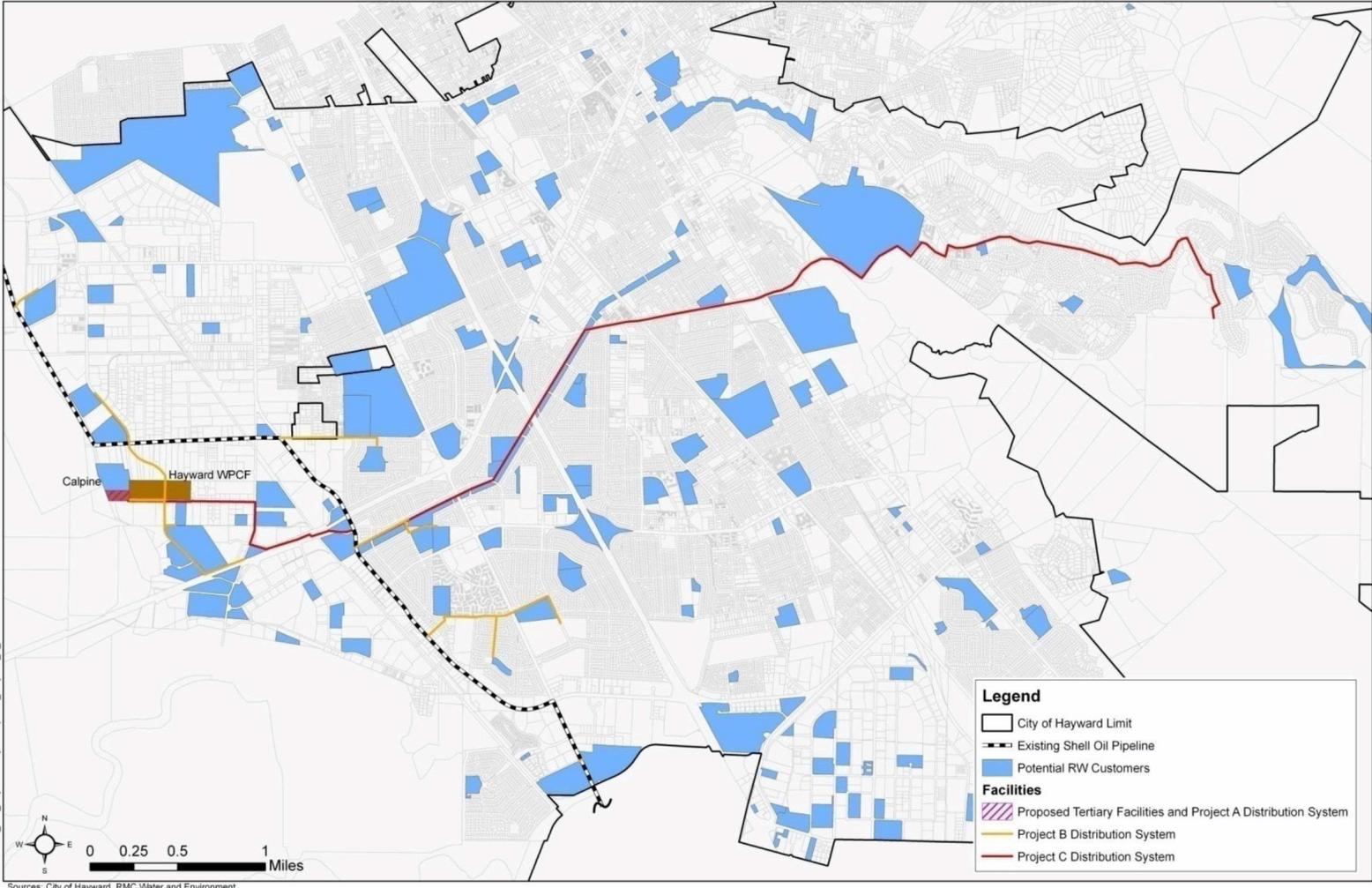
- Wastewater currently treated to secondary level – sufficient for discharge to San Francisco Bay
- Tertiary treatment needed for re-use
- Recommended processes
  - Granular (sand) filters
  - Ultraviolet disinfection
- Final decisions on treatment processes will be made in collaboration with Calpine
- Storage capacity for 1.1 million gallons



# Distribution System Alternatives

- Three alternative distribution systems
  - Alternative A – Baseline
    - Calpine only
  - Alternative B – Baseline plus Local Urban Reuse
    - Calpine
    - Customers within two-mile of the WPCF
  - Alternative C – Baseline plus Expanded Local Urban Reuse
    - Calpine
    - Customers in the eastern hills of Hayward, e.g., California State University and Stonebrae Golf Course

# Distribution System Alternatives





# Shell Oil Pipeline

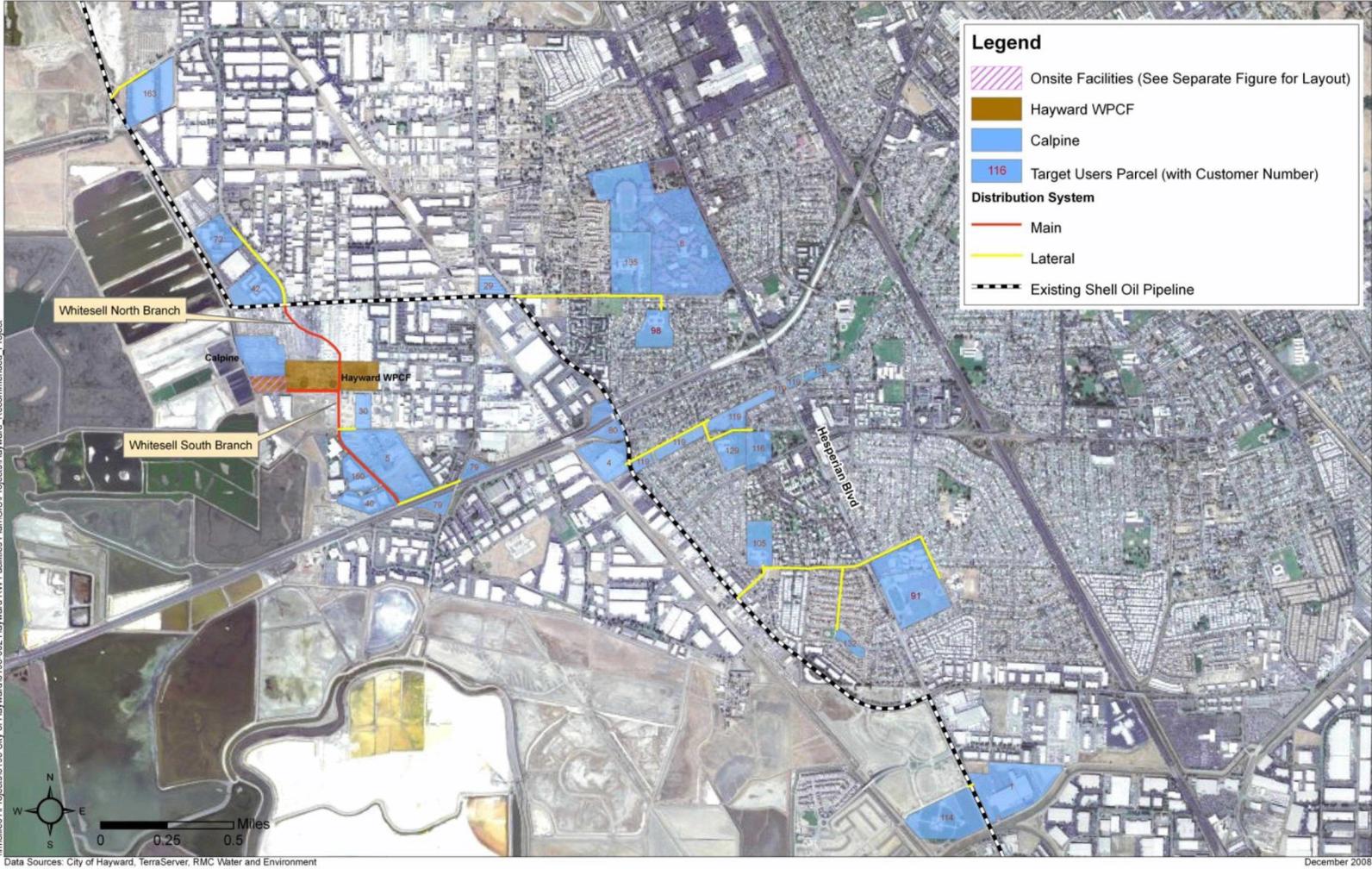
- Hayward authorized construction and use of pipeline in public right-of-way in 1965
- Used by Shell to deliver jet fuel between Oakland and San Jose – no longer in service
- Pipeline is in good condition and can be used as part of the “backbone” distribution system in Alternative B
- Would reduce the cost to the City
- Staff negotiating with Shell to acquire ownership



# Recommended Distribution System

- Alternative B is preferable due to:
  - Less investment in infrastructure
  - Potential additional customers
  - Utilization of existing Shell pipeline
  - Lower operating costs and energy use
  - More potential for future expansion
- Project would include:
  - 1.5 miles of distribution lines
  - 3 miles of local distribution lines to 21 customers
  - Customer installations and retrofits

# Recommended Distribution System



# Recycled Water Quantities

	Average Annual (gpd)	Peak Months (gpd)
Calpine	3,100,000	4,000,000
Other Irrigation Use	250,000	450,000
Other Industrial Use	50,000	50,000
Total Gallons per Day	3,400,000	4,500,000

- Equivalent to 3,760 acre feet per year
- Treatment system to be sized for 4.6 million gallons per day



# Outreach to Potential Customers

- Telephone survey of major potential industrial users
  - Response was generally favorable due to supply reliability and potentially lower cost
  - Some technical and water quality issues to be resolved
- Face-to-face meetings with HUSD and HARD staff
  - Response was also generally positive
  - Identified a need for outreach to the Boards and the public to address health and safety concerns



# Main Issues for Customers

- Public perception of health and safety risks
- Impacts of recycled water on soil and plant materials
- Costs for retrofits needed to receive recycled water
- Issues are not insurmountable
  - Outreach and education effort to address health and safety concerns
  - Water quality impacts can be mitigated
  - Financial assistance for on-site retrofits



## Estimated Costs

- Planning level cost estimate for recommended project is \$27 million
- City share estimated at \$10 million
- Estimated cost per acre foot = \$800 (including Calpine's use)
- Cost sharing agreement with Calpine to be negotiated
- Pricing structure will need to be developed with consideration for:
  - Cost recovery
  - Incentives to utilize recycled water



# Potential Funding Sources

- **State Water Resources Control Board**
  - Grants for up to 25% of construction cost
  - Low interest loans
- **Federal Bureau of Reclamation**
  - Grants for up to 25% of construction cost
  - Bay Area Recycled Water Coalition
- **San Francisco Public Utilities Commission**
  - Recycled water in Hayward has regional benefits
  - Offset of potable water consumption from regional water system



# Recycled Water Project Benefits

- Provides 3,760 acre feet/year (including Calpine's use) of locally controlled, drought proof water
- Conserves potable water for higher level uses
- Diversifies water supply resource
- Beneficial reuse of an existing resource
- Reduces mass loading of pollutants to the San Francisco Bay



# Near-Term Next Steps

- Complete additional environmental work to meet requirements for state and federal funding
- Obtain Bureau of Reclamation “Determination of Feasibility” for federal grant
- Negotiate cost sharing agreement with Calpine
- Work with Shell Oil to transfer ownership of the abandoned pipeline to Hayward



# Water Conservation: Current Programs and New Requirements

City Council Sustainability Committee

November 4, 2009



# Overview of New Water Conservation Actions

- Adopt an Indoor Water Use Efficiency Ordinance
- Adopt a new Water Efficient Landscaping Ordinance
- Adopt a new Water Waste Prohibition Ordinance



# Water Supply

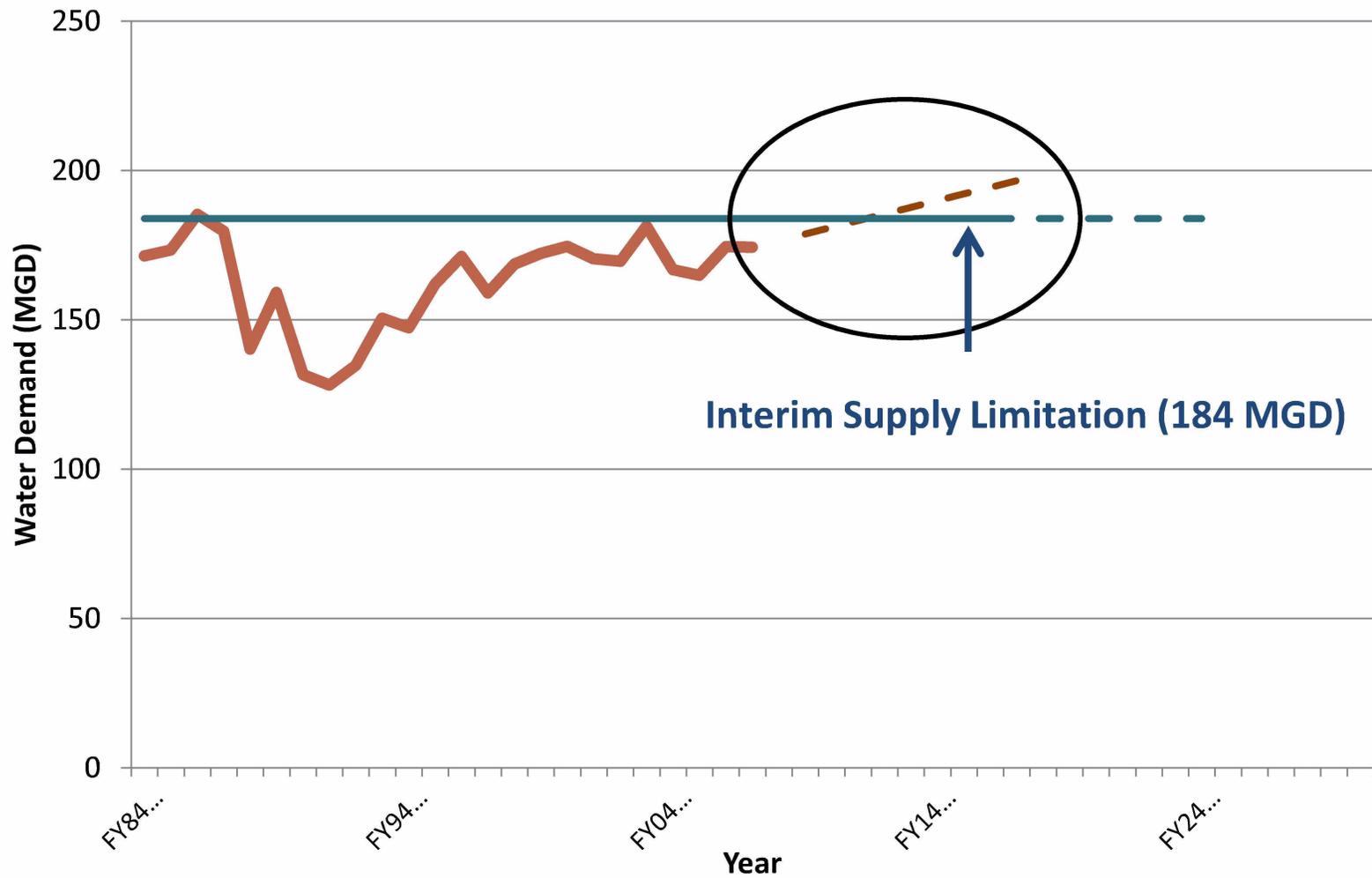
- 100% of water purchased from SFPUC
- Water supply governed by two agreements:
  - Individual Water Supply Agreement
    - No pre-set cap on water supply
    - No expiration date
    - Does not address water quality, wholesale cost, etc.
  - Water Supply Agreement
    - Addresses issues of common concern to all wholesale customers
    - New agreement approved in July 2009
    - Includes wholesale rate principles, plus water quality, and supply limitation provisions



# Water Supply Limitations

- New water supply agreement limits supply to wholesale customers, including Hayward, to 184 mgd through 2018
- Each wholesale customer will be subject to individual limitation – allocations to be negotiated in the coming months
- Availability of additional supplies after 2018 is uncertain
- “Gap” between demand and supply by 2018 without additional conservation

# Demand/Supply Gap





# Current Water Conservation Programs

- Active and effective programs in place, addressing both indoor and outdoor water use
- Programs are voluntary for the most part
- Contribute, in part, to Hayward's low residential per-capita usage
- Further reductions will be more difficult



# Current Indoor Efficiency Programs

- Rebates for high efficiency toilets and clothes washers – over 250 toilet rebates and more than 2,000 clothes washer rebates in last few years
- Free low-flow showerheads and faucet aerators – over 7,500 distributed in recent years
- School curriculum and water conservation kits – over 2,500 students have participated
- Free pre-rinse spray valves installed for food-related customers
- Public education – billing inserts, brochures



# Current Outdoor Efficiency Programs

- Water Efficient Landscape Ordinance for new development – adopted in 1992
- Civic Bay Friendly Landscaping Ordinance
- Environmentally Friendly Landscaping Guidelines for new private development
- Landscape water use surveys
- Free landscaping workshops
- Educational materials



# Pricing Structures as a Conservation Tool

- Increasing tier rate structure connects the unit cost of water to usage
- Four tiers for single-family residential customers
- Two tiers for multi-family and non-residential customers
- Three tier sewer rate for residential customers depending on water use



# Recent Legislation and Other Water Conservation Mandates

- AB 1881 – Requires adoption of Water Efficient Landscape Ordinance by December 31, 2009 – State model or equivalent
- Governor's call for 20% reduction in water use by 2020
- SB 407 – Requires replacement of existing fixtures with water efficient models within date certain time
- BAWSCA's Regional Water Conservation Implementation Plan



# Proposed Indoor Water Use Efficiency Standards

- Will require the installation of water conserving fixtures and appliances
- Complements Green Building Requirements and Build It Green Checklist
- Proposed fixtures are readily available and work well, with proven water conservation benefits
- Development of ordinance facilitated by BAWSCA – other member agencies to adopt same standards

# Examples of Indoor Standards

Fixture	Current Standard	Proposed Standard
Toilets	1.6 gpf	1.28 gpf
Showerheads	2.5 gpm	2.0 gpm
Bathroom Faucets	2.2 gpm	1.5 gpm
Urinals	1.0 gpf	0.5 gpf
Kitchen Faucets	2.5 gmp	2.2 gpm
Clothes Washing Machines	No standard	6.0 Water Factor *
Dishwashers	No standard	6.5 gal/cycle (or Energy Star Certified)
Pre-Rinse Spray Valves	No standard	1.6 gpm

\* Water factor = the number of gallons per cycle per cubic foot of capacity.



# Applicability of Indoor Standards

- Applicable to new construction
- Applicable to remodels that affect kitchens and/or bathrooms

# Financial Assistance

- City rebates help offset the costs of some water conserving devices:
  - High efficiency toilets - \$150 for replacement of up to three existing high water using models (Hayward's estimated FY 2010 cost over \$100,000)
  - Clothes washing machine – Up to \$200 (combined City and PG&E rebate) for purchase of qualified washing machine



# Water Efficient Landscape Ordinance

- AB 1881 requires adoption of State model landscape ordinance, or equivalent, by December 31, 2009
- Alternatives considered:
  - State model
  - Bay Friendly version of the State model, developed by StopWaste.Org
  - BAWSCA model



## Bay Friendly Water Efficient Landscape Ordinance – (Recommended Option)

- Staff evaluated options and is considering modified Bay Friendly version:
  - Complements existing City ordinances and guidelines
  - Addresses a wider range of sustainability issues beyond water conservation, such as waste minimization and fertilizing practices
  - Holistic and sustainable approach
  - Fulfills requirements of AB 1881 and is consistent with Council's sustainability goals



## Major Provisions in Current Water Efficient Landscape Ordinance

- Applies to projects with 2,500 sf or more of new or renovated landscaped area
- Exempts homeowner-installed landscaping on single-family lots
- Limits turf to 50% in front yard
- Requires two inches of wood chip or bark mulch
- Requires landscape water budget, water use schedule and irrigation schedule



# Major Changes

- Applies to all projects that require Planning Division approval
- Plants with similar watering needs to be grouped
- 75% of non-turf plants to be California natives, Mediterranean or other climate adapted species
- Greater irrigation efficiency



## Major Changes (Cont'd)

- Three inches of organic compost required for soil amendment
- Three inches of recycled chipped wood to be used for mulch
- Irrigation audit and water use analysis required for certain landscapes



# Water Waste Prohibition Ordinance

- Current Ordinance adopted in 1993
- Prohibits non-essential uses of water, e.g.:
  - Water used through broken plumbing and irrigation systems
  - Flooding and runoff to gutters and streets
  - Use of a hand-held hose unless it has an automatic shutoff nozzle



# Updated Water Waste Ordinance

- Would retain existing restrictions, and prohibit other wasteful activities, such as:
  - Use of water through decorative water devices, such as fountains, unless the water is recirculated
  - Use of water in commercial car washes unless it is recirculated
  - Single-pass cooling systems
- New prohibitions are, by and large, the current practice today



# Enforcement

- Existing enforcement options, such as restriction of water service for egregious violations, would be retained
- Staff is evaluating other options, including administrative fines



## Next Steps

- Water Efficient Landscape Ordinance to be considered by Council in December
- External delays have occurred in finalizing the Indoor Water Efficiency Standards and Water Waste Prohibition Ordinances – Council consideration may be delayed until January
- Staff will work with affected customers to make them aware of new standards and applicable rebates

**Sustainability Committee  
Monthly Meeting Topics  
September, 2009 - August, 2010**

<b>Presenting Department</b>	<b>Date</b>	<b>Topics</b>	<b>Relationship to Climate Action Plan (CAP)</b>
DS/PW	September 2, 2009	Update on State Codes and Update on Countywide Energy Efficiency Financing Program Development	Actions 3.7, 3.8, 3.9, 4.1, 4.2, 5.1, 5.2
DS	October 7, 2009	Presentation of Energy Efficiency and Conservation Strategy (required as part of EECBG application)	Action 3.4 and General CAP Implementation
PW	November 4, 2009	Water Recycling Presentation	Strategies 3 and 4 (no specific actions)
PW		Water Use Efficiency Ordinances	
DS	December 2, 2009	Solar and Energy Efficiency Financing Programs Update	Action 1.3
DS/PW		Summary of Education and Outreach Efforts (Permit Center-Green Display, Website, etc.)	Actions 9.1, 9.2, 9.3
DS	January 6, 2010	Annual Review of Green Building Ordinances and Implementation	Actions 4.1 and 4.2
DS	February 3, 2010	Discussion- Residential Energy Conservation Ordinance (RECO) Commercial Energy Conservation Ordinance (CECO)	Actions 3.1, 3.2, 3.3
DS	March 3, 2010	Green Collar Jobs and Investment Discussion-Citywide Parking Policy and Revised Standards	CAP Implement. (no specific actions)
DS	April 7, 2010	Summary of issues and regional efforts regarding a ban on plastic bags and styrofoam containers	Action 6.4
DS	May 5, 2010	Draft- Residential Energy Conservation Ordinance (RECO) Commercial Energy Conservation Ordinance (CECO)	Actions 3.1, 3.2, 3.3
DS/PW	June 3, 2010	Update-Energy Efficiency and Conservation Block Grant Projects	Action 3.4 and General CAP Implementation
PW	July 7, 2010	Update on ordinances to ban plastic bags and styrofoam containers	Action 6.4
	August 2010	No Meeting	