



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

May 7, 2008

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 April 2, 2008
- V. Green Building Ordinance - Summary of April 18 Developers' Meeting
Presented by Susan Daluddung, Director of Community and Economic Development
- VI. Water Conservation and Update on City Current Practices
Presented by Robert Bauman, Director of Public Works
- VII. Next Meeting: Wednesday, June 4, 2008 - Climate Action Plan Briefing/TOD and Bay Friendly Landscape Ordinance for Private Development
- VIII. Adjournment



Assistance will be provided to those requiring accommodations for disabilities in compliance with the Americans with Disabilities Act of 1990. Please request the accommodation at least 48 hours in advance of the meeting by contacting Katy Ramirez at 510/583-4234 or by calling the TDD line for those with speech and hearing disabilities at 510/247-3340.

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

April 2, 2008
4:30 p.m. – 6:00 p.m.

MEETING MINUTES

I. Call to Order-4:35 pm

II. Roll Call

Members:

- Michael Sweeney, Mayor
- Olden Henson, Councilmember
- Bill Quirk, Councilmember
- Rodney Loché, Planning Commission
- Julie McKillop, Planning Commissioner (absent)
- Al Mendall, Planning Commissioner

Staff:

- Fran David, Assistant City Manger
- Susan Daluddung, Community and Economic Development Director
- Margret Elliott, Building Official
- Robert Mao, Senior Plan Checker
- Vera Dahle-Lacaze, Solid Waste Manager
- David Rizk, Planning Manager
- Michelle Koo, Landscape Architect
- Arlyne J. Camire, Assoicate Planner (Recorder)

Others:

- Barbara Halliday, Councilmember
- Doug Grandt, Volunteer and Resident

III. Public Comments-None

IV. Approval of Minutes of March 5, 2008-Approved with correction on Pages 4 and 5

V. Green Building Ordinance – Discussion
Presentation by Margret Elliot, Building Official

Prior to Building Official Elliott's presentation, Community and Economic Development Director Daluddung stated that the Green Building and Energy Efficiency Ordinances are scheduled on the Planning Commission and City Council agendas and also indicated that when the City adopts the 2008 California Building Code, the ordinances will be reexamined to assure that most current standards are addressed.

Building Official Elliott gave an overview of the draft green building ordinance. She pointed out that the California Building Standards Commission is writing a green building code that is to be ready in 2012. She indicated that the ordinance does not set a standard for compliance, because there is a natural increase in the requirements. Building Official Elliott further indicated that Build It Green will periodically update the GreenPoint check lists so the draft green building ordinance does not specify a minimum number of points required for a project to be Green Point Rated, and that Stopwaste.org is developing a Small Commercial Projects checklist that Hayward can adopt. She stated that the draft ordinance requires the use of Green Point checklists for all projects except for large non-residential and residential ones, which are recommended to be subject to LEED standards.

Ms. Elliott indicated that the draft ordinance will be discussed at a developers meeting on April 18th at 7:30 am, and that the Sustainability Committee is requested to attend. It was noted that Council member Quirk will be out of town.

Planning Commissioner Mendall expressed disappointment that the draft ordinance only required that commercial projects be LEED certified and recommended that LEED Silver certification be required. He agreed that a third party rater should be required to review projects.

Building Official Elliott pointed out that the draft ordinance includes exemptions for residential projects that are remodels of less than 500 square feet, financial hardship and projects involving a historic structure.

Planning Commissioner Mendall wanted to include as a finding in the ordinance the expected rise in sea level from global warming.

Mayor Sweeney felt that the findings needed to be more extensive and inclusive. Staff requested that the Committee send suggestions for findings to Building Official Elliott and the City Attorney would review the findings. Building Official Elliott pointed out that the findings are only allowed to address climate, geography and weather.

Planning Commissioner Mendall inquired what happens if a project is built, but does not comply with approved plans.

Building Official Elliott responded that a certificate is required for release of the Certificate of Occupancy. If certification is not received from a third party rater, then a Certificate of Occupancy will not be issued.

Council member Quirk inquired what is the meaning of the impacts of the proposed standards? He pointed out that Michelle Koo had stated at a previous meeting that 23 points can be acquired on the GreenPoint check list for compliance with Bay-Friendly Landscaping practices. He wanted to know how the draft ordinance would impact greenhouse gas emissions.

CED Director Daluddung pointed out that using the existing checklists lends expertise to the process. She continued that use of the existing checklists is a safety net of expert organizations, a built-in system, and a track record of compliance to standards. In addition, she indicated that the City could amend the ordinance at any time if the checklists do not meet our needs.

Council Member Quirk questioned how effective the check lists are when it is easier to acquire points for categories like Bay-Friendly Landscaping. He indicated he felt that it would be better to give weight to regulations that would result in a greater impact in reducing greenhouse gas emissions.

Building Official Elliott pointed out that the points are required to be distributed among all categories and minimums are required in all categories. This allows latitude in order to be able to design a building that would be able to gain certification.

Assistant City Manager David pointed out that we cannot know all the outcomes of compliance with each checklist category at this time. However, current science indicates that we will reduce greenhouse gas emissions when we implement mitigation measures. Data will be compiled through implementation of the green building ordinance and implementation of the Climate Action Plan. It appears with all of our efforts, the emissions from the Russell City Power Plant will not be "zeroed-out."

Councilmember Quirk asked if the City has made progress with the green building multi-family standards. Associate Planner Camire replied that there have been very few multi-family projects with more than 20 units proposed since the adoption of the resolution.

Councilmember Henson agreed with Planning Commissioner Mendall that LEED Silver should be the required standard. He questioned how we would know if a building has met the certified requirements, and requested that the City have a method to calculate our own impacts on greenhouse gas emissions.

Mayor Sweeney and the Committee asked for clarification on several points in the proposed ordinance. Both Building Official Elliott and Assistant City Manager David responded.

Planning Commissioner Loché inquired how much of staff time will be devoted to review projects? Director Daluddung pointed out that all the staff that provide support to the Sustainability Committee, who work on Green Building and have worked on Earth Day, do so in addition to their regular duties, and that additional staff will be needed to review projects for compliance to the green building ordinance and to administer green building programs.

Mayor Sweeney requested that staff bring back a budget analysis of staff needs for the implementation of the ordinance and green building program. He pointed out that land use and sustainability are priorities of the City Council.

Building Official Elliott clarified that compliance to Title 24 energy efficiency standards would not count toward meeting LEED standards.

Plan Checker Mao pointed out that building to 5 percent above Title 24 minimum standards would result in a higher reduction of greenhouse gas emissions and 10 percent above compliance to Title 24 minimum standards would go further.

Mayor Sweeney emphasized that the Committee wants to go above minimums and that the ordinance needs quantification of impacts of all standards.

The Committee voted that LEED Silver is to be the minimum standard to be met and to recommend adoption to the City Council. In addition, the Committee clarified that the findings are to be modified to include all that was discussed. Civic Projects should be exempt and exceptions for hardship and historical projects are to be included in the green ordinance.

The Committee also wanted qualifications to focus on the Climate Action Plan.

VI. Introduction of Energy Ordinance
Presentation by Margret Elliot, Building Official

Plan Checker Mao explained that the draft ordinance is based on a study that he completed that used three house examples that required a lower lighting allotment by 10 percent. In addition, he indicated that staff consulted with Stopwaste.org for California Energy Commission standards and for change in building efficiency standards.

CED Director Daluddung asked the Committee if they wanted to commit to commissioning a \$25,000 to \$30,000 study to move forward or wait for the adoption of the 2008 Title 24 energy standards?

Mayor Sweeney inquired if the Energy Commission preempts solar generation?

Plan Checker Mao responded that the 10% reduction of lighting allotment is a proposal for commercial projects not residential houses. The result of my study suggested that Low-E windows would be an effective way to beat the current Title 24 residential energy budget by 10% to 15%, when using performance method.

All locally adopted energy requirements that supersede Title 24 must be reviewed and approved by California Energy Commission.

Hayward is in Climate Zone 3, a relatively mild climate. In which many residential projects can comply under the current (2005) energy standard without installing Low-E fenestrations.

The Committee pointed out that the City can use the Stopwaste.org's study when it is adopted, which can save the City time and money.

The Committee requested that staff bring ideas forward for review by the Committee and directed staff to inform Stopwaste.org that the City is moving forward with the Energy Efficiency Ordinance, and that the draft ordinance should be modeled on existing ordinances, such as Berkeley's Residential Energy Conservation Ordinance (RECO). The Committee members indicated that provisions of the ordinance should include use of e-windows and mandatory solar power, and include home remodels. The Committee suggested that staff request that a bill to be brought to the Energy Commission by Assembly Member Mary Hayashi. The Committee also directed staff to compose a letter to Stopwaste.org to look into the legalities of mandatory solar power systems. The Committee agreed that the City Council should adopt an ordinance to recommend that Stopwaste.org review a Solar Ordinance.

VII. Earth Day Event: April 19, 2008, 11:00 a.m. -3:00 p.m. - City Hall Plaza
Update by David Rizk, Planning Manager

Planning Manager Rizk explained that the event is coming together. He requested volunteers for judges for the multi-media contest. It was decided that on Tuesday, April 14, Mayor Sweeney, Councilmember Henson, and Planning Commissioner Loché would meet to judge the submittals. Planning Commissioner Mendall volunteered to be a back-up judge.

Manager Rizk also indicated that an Earth Day proclamation would be presented at the City Council meeting on April 15, 2008, at which City staff will be present, and a Hayward Clean and Green Task Force member will speak and accept the proclamation.

- VIII. South Alameda County Green Building Developer and Builder Forum
May 28, 2008, 8:00 a.m. – 12:30 p.m. - Ohlone College, Newark
Arlynn J. Camire, Associate Planner

Associate Planner Camire presented an overview of the event and explained that the panel of city representatives would answer questions. The City of Hayward is requested to provide a representative. Mayor Sweeney suggested that Assistant City Manager Fran David represent Hayward at the forum.

Assistant City Manager David responded that a City representative will be sent.

- VIII. Next Meeting: Wednesday, May 7, 2008 - Water Conservation and Update on City Current Practices

For future meetings, the Committee stated that the topics of Transit, Bay-Friendly Landscaping, City Operations and Solar for New Construction and Existing Buildings (Similar to Berkeley's) are priorities.

- X. Adjournment-6:15 pm



DATE: May 7, 2008

TO: Mayor and City Council Sustainability Committee

FROM: Director of Community and Economic Development Department

SUBJECT: Community Response to Proposed Green Building Ordinance

RECOMMENDATION

That the Sustainability Committee reviews and comments on this report.

BACKGROUND

On Friday, April 18th, a meeting was held to inform builders and developers in the Hayward Community of the proposed Green Building Ordinance (Attachment A). Postcards were mailed to five hundred and sixty-two individuals or firms that had taken out permits in the last six months. Notice of the meeting and a draft of the ordinance were posted on the City's website as well. In addition to Committee Members and City staff, 14 members of the development community participated in the meeting. There were three major concerns voiced by the participants: voluntary versus mandatory compliance; process and time added for plan review; and costs of compliance to developers, Hayward homeowners, and to the small builders.

DISCUSSION

In response to the comments at the meeting, staff is recommending the following modifications to the ordinance:

- Inclusion of the definition of "Historical Building": "Historical Building" means any structure or collection of structures deemed of importance to the history, architecture or culture of an area by an appropriate local or state governmental jurisdiction. This definition is taken from the State Historical Building Code, Title 24, Part 8, which the City has adopted.
- Change the threshold language for green building requirements from "the date of permit issuance" to the "date a building permit application is submitted to the City." This is consistent with other code changes, which impose new requirements only on new permit applications, not on those already in process.

- Make compliance with the ordinance voluntary until January 1, 2009. This will give architects who are currently developing plans for future projects adequate time to incorporate green building practices into their designs. It will also give staff time to educate builders about green building requirements, and to train City staff.
- Make remodeling projects of less than 500 square feet exempt from the green building requirements. This addresses the concerns of small contractors and individual homeowners. Staff could provide the smaller project applicants with a checklist for green building and encourage them to complete it even though they are not required to meet all of the elements. This will help educate and inform the public.
- The ordinance will be applicable to new residential construction of single and multi-family dwellings, and residential additions and remodels greater than 500 square feet.
- Staff recommends for new commercial buildings of 25,000 square feet or greater that applicants use the LEED rating system to become either LEED compliant or self-certified.

The process would require the applicant to submit the LEED checklist appropriate for the type of project to the Building Division. The process and documents for self-certified projects shall be substantially the same as required for a LEED registered project. However, this documentation need only be submitted to the Building Division at the time of building permit application. Building commissioning specified as a prerequisite for LEED ratings is not required for self-certifying projects. Review of the LEED checklists and the corresponding items on the plans shall be performed by plan checkers at the City and will require additional staff training and will likely extend plan review time frames. Applicants may choose to register their projects with the United States Green Building Council (USGBC) and become fully LEED certified. Again, certification is not required.

Attendees expressed concern about the cost of LEED compliance and the threshold at which LEED compliance would be triggered. Staff has reviewed the ordinances of other jurisdictions and neither Livermore, Santa Rosa, nor Pasadena, have mandatory LEED compliance. They have varying forms of less-than-complete LEED compliance. Although projects use LEED checklists and ratings, they are not required to go to USGBC and pay for their services. This approach results in the desired outcomes derived from the LEED point system, but does not require certification. Staff recommends the City consider this approach, and work with staff to set levels of compliance.

By adopting the ordinance as voluntary until January 1, 2009, and delaying the time for mandatory compliance, both developers and staff will have more time to familiarize themselves with green building requirements. During this period workshops will be held with builders, developers, and property owners to review green building code requirements and evaluate effectiveness. The goal is to have a clear process, good information, a trained staff, and workshops for the development community plus a financial mechanism to support this effort. The development community also wants clarity: a clear process and time frame to integrate the green building model into their investments.

If the Sustainability Committee is satisfied with information and the re-written Green Building Ordinance in June, staff recommends we forward the ordinance as amended for City Council consideration in July.

The Ordinance would remain voluntary until January 2009. During this voluntary period, staff will develop informational handouts and workshops for members of the construction community who will be directly affected by the ordinance. By delaying mandatory requirements and implementing a voluntary ordinance, we can provide adequate notice to developers for projects now in the early stages of development so they will be able to submit projects that are in compliance with the ordinance once the stage of mandatory compliance is reached. During this period, staff will develop internal procedures for reviewing plans for compliance.

A separate ordinance for Bay Friendly landscaping for private development applications is now being developed by Planning staff. There are two checklists being developed. One is for Existing Homes, which is a GreenPoint checklist being developed by the organization called "Build It Green". The other is a checklist for small commercial projects being developed by Stopwaste.org. Both will be ready in June, according to Stopwaste.org.

As discussed and agreed in the last Sustainability Committee meeting, the Committee recommends that we wait on any energy standards changes until after the release of the 2008 Title 24 Energy Commission by the State of California. This set of increased energy requirements will be released sometime in 2009. Next year, subsequent to the Committee review of the new energy code, Hayward may see fit to exceed this code.

The result of an internal staff study and analysis suggested that Low-E windows would be an effective way to beat the current Title 24 residential energy budget by 10% to 15%, when using the performance method. Hayward is in Climate Zone 3, a relatively mild climate, where many residential projects can comply under the current (2005) energy standard without installing Low-E fenestrations. Therefore, if the City does go forward in the future to require Low-E fenestrations, this would likely increase energy efficiency. All locally adopted energy requirements that supersede Title 24 must be reviewed and approved by California Energy Commission. This would require hiring a consultant to do a study to demonstrate the efficacy of this measure. Staff notified the Committee that we will be enforcing State mandated 2008 Title 24 energy conservation requirements in mid 2009. Low-E fenestration will be a requirement of the new regulations.

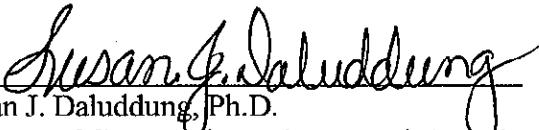
FISCAL IMPACT

The fiscal impacts to the City and to builders associated with this action have not yet been fully measured. Additional staff time for plan review and inspections have not been completely identified. The City is currently involved studying our fees and updating fees to reflect the costs of providing service. The costs of implementing this ordinance will be included in that study, along with analysis of expected additional plan check timeframes.

NEXT STEPS

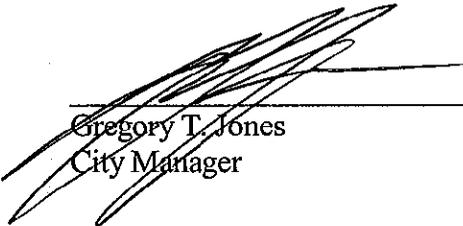
1. Bring the Green Building Ordinance forward for City council consideration in July.
2. Review Stopwaste.org GreenPoint checklists for small commercial projects and existing residential buildings, after their release.
3. Review and adopt ordinance for Bay Friendly Landscaping for private construction.

Prepared by:



Susan J. Daluddung, Ph.D.
Director of Community and Economic Development

Approved by:



Gregory T. Jones
City Manager

Attachment A - Draft Green Building Ordinance

HAYWARD CITY COUNCIL

ORDINANCE NO. _____

AN ORDINANCE ADDING ARTICLE 21 TO CHAPTER 10 OF THE HAYWARD MUNICIPAL CODE ESTABLISHING GREEN BUILDING REQUIREMENTS FOR NEW CONSTRUCTION

PREAMBLE: The City of Hayward has set forth a challenge to itself, its residents, and its business community to work together to reduce the City's carbon footprint and conserve our precious limited resources. The City of Hayward is constantly seeking to implement responsible sustainable practices throughout our organization and our community.

In doing so, the City of Hayward recognizes this is new territory for both staff and customers, and we want to avoid making our processes and procedures onerous or unreasonably expensive for those doing business with the City. Since the science of sustainable practices is still emerging, we expect that this and related Ordinances will also be changing as information grows more consistent and reliable. We ask our customers to work with us and to understand that while we take seriously the stewardship of our natural resources, we also value our relationship with our business and residential customers, and seek to find the appropriate balance for the benefit of our community.

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

SECTION 1. FINDINGS AND PURPOSE. The purpose of this Article is to promote the health, safety, and welfare of Hayward residents, workers, and visitors by minimizing the use and waste of energy, water, and other natural resources in the construction and operation of the City's building stock and by providing a healthy indoor environment. The green building practices required by this Article will also further the goal of reducing the City's greenhouse gas emissions over the next few years.

SECTION 2. The City of Hayward's Municipal Code is hereby amended to add Article 21 to Chapter 10 as follows:

"GREEN BUILDING REQUIREMENTS

SECTION 10- 21.100 TITLE. This Article shall be known and may be cited as the Green Building Ordinance of the City of Hayward.

SECTION 10-21.110 DEFINITIONS. For the purposes of this Article, certain terms are defined as follows:

- a. "Applicant" means any individual, firm, Limited Liability Company, association, partnership, political subdivision, government agency, industry, public or private corporation, or any other entity that applies to the City of Hayward for permit(s) to construct a Project subject to the provisions of this Article.
- b. "City" means the City of Hayward.
- c. "City of Hayward Checklist for Small Commercial Projects" means the checklist now being developed by StopWaste.org for small commercial projects, which shall be adapted for use in the City of Hayward and enforced by City Staff.
- d. "Commercial" means any building or space used for retail, industrial, office, or other non-residential use.
- e. "Green Point Rated", "Green Points", and "Green Points Checklist" mean the residential green building rating system and checklist and certification methodology used by the non-profit organization Build It Green, or an equivalent organization and rating system approved by the Building Official in consultation with the Director of Community and Economic Development.
- f. "Historical Building" means any structure or collection of structures deemed of importance to the history, architecture, or culture of an area by an appropriate local or state governmental jurisdiction.
- g. "Large Commercial Project" means a new commercial building or addition that is greater than 25,000 square feet in gross floor area.
- h. "LEED" and "LEED Checklist" mean the Leadership in Energy and Environmental Design rating system, certification methodology, and checklist used by the United States Green Building Council (USGBC) to encourage and accelerate global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria.
- i. "Major Residential Tract" means developments consisting of more than one residential building having more than 20 dwelling units in any combination of detached single-family dwellings or multi family dwellings.
- j. "Municipal Project" means any project funded for more than 50% of its cost by the City of Hayward.

- k. “Multifamily Residential Building” means a single residential building that has more than two dwelling units.
- l. “Mixed-Use” means a building with residential and commercial or retail uses, or a combination of residential, commercial, and retail uses.
- m. “Project” means any proposed residential or commercial construction for which an application for a building permit is received on or after January 1, 2009.
- n. “Self-Certification” means a project that uses the LEED checklists and guidelines for design and review of the project, but which is not registered with the USGBC (United States Green Building Council).
- o. “Small Commercial Project” means commercial new construction, addition, alteration, renovation, or tenant improvement, 25,000 or fewer square feet in gross floor area.

SECTION 10- 21.120 APPLICATION AND EXEMPTIONS.

a. The provisions of this Article apply to private residential or commercial construction, as well as municipal projects, for which a building permit application is received on or after January 1, 2009, with the following exemptions: Buildings that have been designated as “Historical” pursuant to the California Historical Building Code, Title 24 Part 8, are exempt from these requirements.

b. Permits issued only for foundation repair, re-roofing, repair of fire damage, work required by termite reports, or other items of building or structural maintenance.

c. Hardship exemptions may be granted by the Building Official on Small Commercial Projects or residential addition or remodel projects valued at less than \$25,000 where the Project Applicant can demonstrate the cost of complete compliance will exceed 1.0% of construction costs.

d. Exemptions may be granted by the Building Official for other projects where it can be demonstrated that complete compliance is not possible due to unusual building circumstances. This exemption is for other than economic considerations.

SECTION -10-21.130 GREEN BUILDING REQUIREMENTS.

The following green building requirements shall apply to all Projects subject to this Article. Wherever reference is made to the LEED or Green Point Rated systems, a comparable equivalent rating system may be used if approved by the Building Official in consultation with the Director of Community and Economic Development. The applicable LEED or Green Point Rated or equivalent requirements are those in effect at the time a complete application for the

Project is submitted to the Building or Planning Division.

SECTION 10-21.140 LEED CERTIFIED PROJECTS

a. Large Commercial Projects

Effective January 1, 2009, Applicants for Large Commercial Projects, including additions greater than 25,000 square feet, shall use the appropriate LEED rating options to reach LEED compliance.

However, project applicants may elect to use the LEED checklists and required documentation for self-certification. In the voluntary certification process the appropriate documentation for the project type will be submitted to the City at the time of permit application. City staff will review the plans and documentation.

Applicants may choose to become fully LEED certified by registering their project with the USGBC (United States Green Building Council) and going through the entire process for LEED certification. Applicants must declare at time of plan submittal whether they are intending to pursue LEED certification.

b. Major Residential Tracts.

Until the LEED-ND Guidelines have been published, these Projects will comply with the applicable GreenPoint requirements for single-family or multi-family dwellings.

c. Municipal Projects.

Municipal projects involving new construction or renovation that either have a construction cost that exceeds three million dollars, or are twenty thousand square feet or larger, shall achieve a minimum of LEED silver compliance.

SECTION 10 -21.150 GREEN POINTS BASED PROJECTS

a. Multi-Family Residential Buildings

Effective January 1, 2009, Multi-Family Residential Building Project Applicants shall submit documentation demonstrating the building has been certified by a third-party rater as complying with the Green Point checklist for Multi-Family Residential development.

b. New Single Family Dwellings of Any Size (includes Detached Single Family Dwellings, Duplexes and Townhouses of two dwelling units or less per building.)

Effective January 1, 2009, Applicants new single family dwellings projects of any size shall submit documentation demonstrating the building has been certified by a third-party rater as complying with the GreenPoint checklist for single family dwellings.

c. Residential Additions/Remodels of Any Size

Effective January 1, 2009, Applicants for Projects consisting of remodels and/or additions greater than 500 square feet to existing residential single family or multi-family dwellings shall submit documentation demonstrating that the building has been certified by a third party rater as complying with the GreenPoint checklist for remodeling and existing homes.

d. Small Commercial Projects

Effective January 1, 2009 Small Commercial Projects, including tenant improvements, shall comply with the City of Hayward checklist for Small Commercial Projects.

SECTION 3. Severance. Should any part of this ordinance be declared by a final decision by a court or tribunal of competent jurisdiction to be unconstitutional, invalid, or beyond the authority of the City, such decision shall not affect the validity of the remainder of this ordinance, which shall continue in full force and effect, provided that the remainder of the ordinance, absent the unexcised portion, can be reasonably interpreted to give effect to the intentions of the City Council.

SECTION 4. In accordance with the provisions of Section 620 of the City Charter, this ordinance shall become effective thirty days after adoption.

INTRODUCED at a regular meeting of the City Council of the City of Hayward, held the ___ day of ____, 2008, by Council Member _____.

ADOPTED at a regular meeting of the City Council of the City of Hayward held the__ day of __, 2008, by the following votes of members of said City Council.

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ATTEST: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

APPROVED: _____
Mayor of the City of Hayward

DATE: _____

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

City Attorney of the City of Hayward



DATE: May 7, 2008

TO: Mayor and City Council Sustainability Committee

FROM: Director of Public Works

SUBJECT: Summary of Water Conservation Activities

RECOMMENDATION

That the Sustainability Committee reviews and comments on this report.

SUMMARY

This report provides an update on long-term projected water use in Hayward and the water conservation efforts that are in place or planned to assist residents and businesses reduce their water usage. The report also includes discussion on the fiscal issues regarding water conservation, including the need for adequate funding to implement cost effective conservation measures.

BACKGROUND

Water usage, including Hayward's, is under increasing scrutiny to ensure that water resources are used efficiently and to reduce water demand through a comprehensive water conservation program. Much of this scrutiny comes from the environmental community, which is concerned about the amount of water being diverted from fish and wildlife habitats; however, there is also heightened awareness among many residents and businesses that the availability of water supplies in California is subject to climate conditions and growth in demand. The winter of 2007, which was a very dry season in terms of snowfall, reminded people of the importance of conserving water resources.

Hayward is one of 28 suburban purchasers of potable water from the San Francisco Public Utilities Commission's (SFPUC) regional water system and receives 100 percent of its water supply from SFPUC's Hetch Hetchy system. As part of the SFPUC's efforts to implement seismic and other improvements to the system, Hayward participated in a study in 2004 to develop projections for water demand through 2030. Using the model developed by SFPUC and consistent with the methodology used by all of the suburban purchasers, Hayward's projected water demand in 2030 is 27.9 million gallons per day (mgd). For comparison, Hayward's water consumption in 2007 was 18.2 mgd. By volume, Hayward's projected increase in water use is the highest among suburban purchasers. The projected volume increase, if materialized, would bring Hayward's residential per capita usage, which is currently among the lowest of suburban purchasers, to close to average. It is

important to note, however, that the 2030 projection is simply a long-range estimate and would not cause or encourage higher actual water usage.

The water demand increase is reasonable, considering Hayward's economic development potential, intensification of existing land use, and housing strategies. There has also been a trend in recent years for property owners to improve their landscaping, resulting in additional outdoor use. It is also important to remember that the projection is a twenty-five year estimate. Nonetheless, the potential demand increase has caused some entities to pay particular attention to Hayward's usage and water conservation program.

Hayward has, in fact, a long-standing and active commitment to water conservation. As an original signatory to the California Urban Water Conservation Council Memorandum of Understanding (MOU), the City has implemented a number of cost effective demand management measures and consumer education programs to reduce water usage among our residential, commercial, and industrial customers. In addition to assisting our external customers, the City has also put into place water conservation practices and resources to reduce usage at City properties, most notably in landscape irrigation and system leak detection. The Water Conservation Program's success is demonstrated by the relatively low City-wide per capita residential consumption, as compared to other comparable agencies that purchase water from SFPUC. In 2006 (the most recent year for which data is available), Hayward's per capita use was 69.8 gallons per day (gpd). This usage was 22% below that of Redwood City (89.6 gpd) and 27% below Union City (95.2 gpd), which is served by Alameda County Water District.

DISCUSSION

The following are brief descriptions of the programs and practices that the City is currently implementing, or has offered in the past, to reduce water use.

Appliance and Fixture Replacements

- **Household Fixture Replacements.** Water conservation kits, consisting of water efficient showerhead, faucet aerators, toilet displacement bags, and leak detection tablets were made available at no cost to customers. About 5,000 kits were distributed in 1999 and 2000. More recently, water conserving devices have been distributed to families as part of the Water Wise school education program (see below). Similar to the original water conservation kit in content, the Water Wise kit provides high quality fixtures and water use audits and activities.
- **Residential Toilet Replacement Rebates.** The City offered rebates for the replacement of an existing toilet with a 1.6 gallon per flush (gpf) model between 2000 and 2003. As a result, close to 900 older toilets, using up to 7 gallons per flush, were replaced with water efficient units.
- **Commercial and Multifamily High Efficiency Toilet Replacements.** The City is developing a rebate program to encourage the replacement of existing toilets and urinals with high

efficiency models, which use 1.3 gpf. The current standard for new toilets is 1.6 gpf. This program is expected to get underway before the end of FY 2008.

- **Waterless Urinal Replacement Project.** A project has been included in the FY 2009 Capital Improvement Program to replace existing urinals with waterless models in all City facilities. While existing urinals may use anywhere from one to three gallons of water per flush, depending on the age of the unit, waterless urinals use replaceable cartridges and sealants to capture liquid and prevent odors
- **Residential Washing Machine Rebates.** This regional program provides combined water agency and PG&E rebates of \$125 or \$200 (depending on the model) for the purchase of an Energy Star rated clothes washing machine. The City has participated since the program's inception in 2001 and has issued more than 1,300 rebates to date.
- **Commercial Washing Machine Rebates.** Through the CUWCC Smart Rebates Program, the City is offering rebates of up to \$400 for the purchase of a commercial washing machine, typically found in coin operated laundries and multi-family laundry facilities. The City has been allocated a total of 25 rebates based on available CUWCC funding and program participation.
- **Cooling Tower Controller Rebates.** Again through the CUWCC Smart Rebates Program, a financial incentive is offered for the installation of a cooling tower control to increase the number of cycles prior to discharging water used for cooling purposes.
- **Pre-Rinse Spray Valves.** About 150 food related businesses, more than one-half of all such businesses in Hayward, have been equipped with a pre-rinse spray valve to reduce the water used for cleaning dishes and cooking utensils. The valves, which were installed between 2003 and 2007, were provided at no cost to the businesses

Conservation Oriented Water Rates

- **Water Usage Rates.** The City introduced an inclining block water rate structure in 1993 to encourage water customers to reduce their use. The rate schedule originally had two tiers; in 2003, it was expanded to three tiers. The first tier (1 to 10 units) rate is the base rate. The cost of second tier usage (11 to 30 units) is about 18% above the first tier, while highest block (over 30 units) has a still higher cost of about 23% over the second tier. About 25% of the City's water is sold at the two lower rates. Among purchasers of SFPUC water, the number of rate tiers and the sales per tier vary widely, from Alameda County Water District, which has a single tier, to the City of Daly City, which incorporates ten tiers into its rate structure. However, the basic principle is that tiered rate structure discourages higher water usage while providing a more reasonable rate for base usage.

The current annual average residential water use in Hayward is 20 hundred cubic feet (ccf) per billing period, which results in a water use charge of \$46.80 every two months. Customers whose usage reaches the ceiling amount within the second rate tier see a water use charge of \$72.10 or 54% above the annual average. If an additional 10 units of water is

used in a billing period, the water usage charge would climb to \$103.30, more than twice as high as the average billing. While the issue of price signals and price elasticity is still being explored in the water conservation community, Hayward's water rate structure and water use rates deliver incentives to minimize water use.

- **Service Charge.** Hayward has one of the lowest service (or fixed) charges among Bay Area water agencies. This is significant because it means that customer billings are primarily driven and affected by water use. The basic charge for a 5/8" meter is \$4.50 per month (\$9 bimonthly). Staff estimates that only about 10% of water sale revenue is derived from service charges, with the remainder coming from water usage charges.
- **Wastewater Charges.** The City of Hayward is one of the few agencies that offer a residential wastewater rate structure based on wastewater discharge, and provides an incentive to minimize water use. Customers that use ten or fewer units of water in a billing period are automatically billed the lowest (Lifeline) sewer rate, which is about 30% of the top rate. Customers that use between 11 and 15 units pay the middle (Economy) rate, which is about 60% of the top rate. The top sewer rate is applied when water usage exceeds 15 units. This is a practical method for implementing wastewater rates that are aligned with water usage, since wastewater metering is still impractical. Customers do not need to apply for the lower wastewater rate tiers; they are applied automatically based on meter readings.

Consumer Education

- **Water Efficient Landscape Classes.** The City works with the Bay Area Water Supply and Conservation Agency (BAWSCA) to provide a class each year, taught by a noted expert in water efficient landscaping, for residential customers. This past year, close to 90 people expressed interest in the class, exceeding the City's best estimate based on participation in previous years and in other jurisdictions. In 2008, two classes will be offered in Alameda County, one in Hayward and one in Fremont, so that more participants can be accommodated.
- **Water Efficient Landscaping Information.** Hayward offers free brochures and a GardenSoft CD to encourage water conserving landscaping. The CD is a particularly effective tool for helping customers design and install a landscaping plan that does not sacrifice beauty for water efficiency. The information and CDs are available through the City's website, Revenue office, at special events, and by request.
- **School Education.** The City offers the WaterWise curriculum (developed by Resource Action) to fifth grade classrooms. This program includes teaching aids, activity books, and CDs. Students also receive high quality showerheads and faucet aerators for installation in their homes. The response to the program has been excellent. In two years, the program has been provided to 35 classrooms, reaching nearly 1,000 students.
- **Ordinance to Require Separate Irrigation Meters.** The Hayward City Council recently adopted an ordinance which requires the installation of a dedicated irrigation meter for new

water services for larger development projects (i.e., properties with more than 5,000 square feet of landscaping). Dedicated irrigation water meters measure solely the volume of water used for landscape purposes, enabling account holders to monitor and control more precisely the water used for irrigation. Studies have shown that dedicated irrigation meters provide the accurate feedback necessary to evaluate the efficiency of irrigation practices, while mixed use meters, which measure water consumed for indoor and outdoor uses, seldom provide sufficient information to cause a change in irrigation practices.

- **Special Events.** The City participates in a variety of special events, including local fairs, festivals, and business activities, to provide information and devices to encourage water conservation.
- **Billing Inserts.** Customers receive information with their bills providing ideas for conserving water, both indoors and outdoors. The inserts are typically purchased from the AWWA and thoroughly researched and credible.
- **Consumption Tracking.** Water bills enable consumers to track their water use from year to year by providing information about water use for the same period in the previous year.
- **Website Information.** The City's website includes information about the City's current water conservation programs and general water conservation ideas, including a link to H2Ouse.org, the CUWCC's innovative conservation website.

City-Specific Water Conservation Activities

- **Landscape Irrigation Staffing.** The City funds four dedicated Landscape Maintenance positions within the Water Operating Fund to manage irrigation systems on all public streets, public right-of-ways, and City-owned properties. These staff members monitor and maintain the systems to ensure that watering times are appropriate for the weather conditions and the sprinkler heads are correctly adjusted to minimize waste.
- **Evapotranspiration Controller Installations.** Evapotranspiration (ET) is water lost from soils through evaporation and water absorbed into plant tissue. ET rates are affected by climatic conditions, such as temperature, wind, and humidity. Traditional irrigation systems turn water on and off based on a set schedule, whereas ET controllers adjust irrigation systems based on conditions to ensure that the proper amount of water is used. To date, the City has installed about 10 ET controllers to manage watering needs, particularly in new developments. Ultimately the City plans to install 75 such controllers. Currently, water savings of about 25 percent at each site are being achieved. Once the system is fully upgraded and centrally controlled, water savings are expected to be in the range of 40%.
- **Leak Detection Survey and Repair.** In order to address the issue of unaccounted-for-water, the City retained a contractor in 2006-07, to identify leaks through a comprehensive leak detection survey. This work had been previously done in 1995. The survey indicated that the distribution system is quite sound, with just a very few small leaks located. Hence, the City is planning to concentrate next on meter testing and replacement to reduce the difference between wholesale water purchased and retail distribution.

- **Civic Bay-Friendly Landscape Ordinance.** In January 2008, the City Council adopted an Ordinance to require Bay-friendly landscaping for new public and public-private partnerships. Among other things, Bay-friendly landscaping incorporates water conservation practices, such as water-wise plant selection, high efficiency irrigation equipment, minimal use of turf, and use of mulch to hold water in the soil. The Ordinance applies to City-maintained and public-private partnership landscapes that exceed \$100,000 in construction costs. However, many of the principles can be incorporated into smaller designs as well. In addition, staff is developing a Bay-Friendly Landscape Ordinance for private projects that will require the same principles and practices to be utilized for certain larger development projects.
- **Water Efficient Landscape Ordinance.** The City Council adopted a Water Efficient Landscape Ordinance in 1993 to ensure that landscaping in new development met certain standards for water efficiency. The City has on staff a landscape architect who reviews landscaping plans for conformance with the ordinance and ensures that the final installation meets the City's standards. (Note: The City will update the Ordinance, in accordance with Assembly Bill 1881, when the model is available from the Department of Water Resources.)
- **Water Efficient Landscape Designs.** The City will be evaluating the replacement of existing landscaping with Bay-Friendly and water efficient designs in high-visibility public areas, such as certain medians and City-owned building. Besides reducing the City's water usage, such landscaped areas would serve as "demonstration" gardens to show that a water conserving garden can be attractive.

In addition to conserving water, the City is looking at other ways of reducing its use of Hetch Hetchy water. Currently, staff is exploring the feasibility of supplementing potable water supplies with highly treated recycled water for landscape irrigation and certain industrial uses. The decision to implement a recycled water program and the timing of such a program will depend largely on consumer acceptance and cost of constructing facilities. Preliminary estimates indicate that the cost of delivering recycled water would be substantially higher than the cost of potable water, so developing even a small recycled water project would significantly increase the overall cost of supplying water; however, recycled water has become an increasingly viable means of decreasing a community's reliance on potable water.

Staff is also considering the implementation of a groundwater management study to assess the quality and quantity of available groundwater supplies and the potential for using groundwater to meet some of Hayward's water demand. The City applied for grant funding from the State Department of Water Resources to offset some of the costs of this study, but the grants have not yet been awarded.

FISCAL IMPACT

The Water Fund Operating budget currently allocates funding of \$100,000 annually for water conservation programs, in addition to some funds that are available for printing of educational

materials. Additionally, the Water System Replacement Fund includes a project to replace existing high-water-using fixtures with water efficient models. These funds are utilized primarily to implement toilet replacement rebate programs. It will be necessary to maintain adequate funding in the future to keep pace with costs of implementing effective water conservation measures. The costs would be borne by Hayward water customers and reflected in the water rates. However, as the wholesale cost of water is expected to rise dramatically over the next eight or so years, water conservation programs will become increasingly cost effective.

Another potential fiscal issue that staff would like to bring to the Committee's attention is the role of BAWSCA in the City's water conservation efforts. The Agency was formed by State legislation in 2003 and is comprised of suburban water purchasers of SFPUC water. The 28-member Board is mostly made up of elected representatives from each member agency. At times, BAWSCA takes on the role of coordinating regional water conservation strategies among member agencies, as some programs are most cost effective and successful when implemented on a regional basis. BAWSCA has played such a role in such efforts as the washing machine rebate program, the school education program, water efficient landscape classes, and development of the GardenSoft CD. In most cases, the costs of specific programs are paid on a subscription basis by member agencies that wish to participate. Programs that are of general benefit are paid for by all member agencies. In this way, BAWSCA fully recovers its costs, and agencies that benefit from the programs share in the implementation costs. Hayward has opted to participate in almost all of the BAWSCA-sponsored programs and has paid its share of the costs accordingly, typically based on the level of participation, in addition to paying for local programs.

BAWSCA is exploring alternative methods for funding water conservation. One such alternative would be to impose a mandatory to-be-determined assessment amount on each member agency to establish a conservation fund. Agencies could then utilize those funds to implement local or regional programs. The BAWSCA Board, instead of local governing bodies, would make decisions on how to allocate the costs, how to spend the funds, and whether a program is effective. The rationale behind this idea is that a uniform level of investment in water conservation among all agencies would be achieved, whereas, under the current allocation method, some agencies, mostly those that are much smaller, have not demonstrated as strong a commitment to water conservation as others.

Staff has concerns about this approach to funding regional conservation, primarily in terms of its potential adverse impact on maintaining local control over how the City's water conservation resources are spent. It is staff's belief that the Hayward City Council is in the best position to determine, and should have the final say on, which programs best suit the Hayward community and are most effective in managing water demand among its customers. Granting authority to make these decisions to a regional entity would be unnecessary, ineffectual, and may not be in Hayward's best interests. At a minimum, staff would urge that a process be developed to allow agencies to opt out of the regional conservation fund if they are maintaining a certain level of water conservation activity and expenditures. Staff members from several other agencies have expressed similar concerns. Changes in regional conservation programming and its funding are still under discussion and a final decision has not been made by the BAWSCA Board; however, staff wanted to make the Committee aware of this issue.

NEXT STEPS

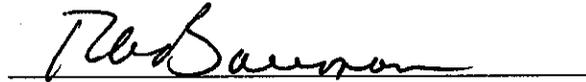
In addition to continuing its existing programs, Hayward staff will continue to evaluate and consider other measures to increase water use efficiency, including continued participation in regional rebate and education programs and incentives for replacement of turf with water efficient plants. Staff will also continue to monitor developments regarding the funding of regional programs and to express the City's position on this issue.

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