



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

October 1, 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 September 3, 2008
- V. Revisions Associated with Hayward Environmentally Friendly Landscape Guidelines and Checklist for Private Developments  
David Rizk, Director of Development Services Department
- VI. Climate Action Plan Update  
Erik Pearson, Senior Planner, and Consultants John Deakin, HDR, and Steve Coyle, Town Green
- VII. Opposition to Proposition 7  
David Rizk, Director of Development Services Department
- VIII. Committee Discussion of Future Agenda Topics
- IX. General Announcements and Information Items from Staff
- X. Committee Referrals and Announcements
- XI. Next Meeting: Wednesday, November 5, 2008  
Solid Waste and Recycling Review  
Vera Dahle-Lacaze, Solid Waste Manager
- XII. Adjournment



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# CITY COUNCIL SUSTAINABILITY COMMITTEE MEETING

Hayward City Hall – Conference Room 2A  
777 B Street, Hayward, CA 94541-5007

September 3, 2008  
4:30 p.m. – 6:00 p.m.

## MEETING MINUTES

I. Call to Order-4:34 pm

II. Roll Call

### Members:

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

### Staff:

- Fran David, Assistant City Manager
- Susan Daluddung, Community and Economic Development Director
- Robert Bauman, Director of Public Works
- David Rizk, Planning Manager
- Michelle Koo, Landscape Architect
- Arlynne J. Camire, Associate Planner (recorder)

### Others:

- Teresa Eade, Bay-Friendly Landscaping Project Manager, StopWaste.org
- Doug Grandt, Volunteer and Resident
- Ton Kersten, Resident
- Laurie Price, CSUEB Professor and Resident
- Ron Reese, Balch Enterprises, Inc.
- David Stark, Bay East Association of REALTORS®
- Andy Wilson, Resident

III. Public Comments

Doug Grandt reminded the Committee that Governor Schwarzenegger signed AB 811 into law on July 21, 2008. The bill allows cities like Hayward to encourage residents to install energy efficiency measures including; double paned windows, insulation, solar PV electric systems, and solar thermal water and space heating systems by financing such installations with low-interest loans and repayment on through homeowner's property tax bills amortized over 20 years. Mr. Grandt encouraged the Committee to pursue implementation of AB 811 in Hayward as

quickly as possible, noting that he understood that Ms. Camire may be working on the very topic already.

Mayor Sweeney thanked Mr. Grant for the information and announced that Mr. Grandt will be liaison between Keep Hayward Clean and Green Task Force and the City Council Sustainability Committee.

- IV. Approval of Minutes of July 1, 2008- Councilmember Quirk moved and Planning Commissioner Mendall seconded the motion to approve the minutes. The minutes were unanimously approved.
- V. Green Building Ordinance Schedule  
Community & Economic Development Director Daluddung congratulated the Committee on the good work. She reviewed the schedule and answered questions of the Committee.
- VI. Proposed Hayward Environmentally Friendly Landscape Guidelines and Checklist for Private Development Projects

Planning Manager Rizk directed the Commissioners to the matrix attached to the staff report and gave a summary of the requirements for private development. He pointed out that these requirements are unique to Hayward and the requirements incorporate Bay Friendly Guidelines and State water efficiency regulations. He and Landscape Architect Koo addressed Committee questions.

Mayor Sweeney asked if StopWaste.Org needs time to develop a score card and have time to have third party raters trained to enforce Bay Friendly Guidelines.

Council member Quirk asked for the rational for mandatory Single-Family Hillside requirements and why not mandatory requirements for all single-family residential.

Landscape Architect Koo responded that because of the topography, the stability of the soil and the potential for erosion it is necessary to regulate hillside properties. In addition, the City has evidence that hillside backyards that are paved and not landscaped cause sheet drainage that causes erosion. In turn, the erosion has an impact on neighboring properties or on steep terrain. Furthermore, the potential for fire hazards should be mitigated.

Commissioner Mendall question the ability to enforce the guidelines if a resolution is adopted by the City Council.

Planning Manager Rizk stated that the guidelines will be adopted as policy and that typically staff is successful with implementing regulations stated on checklists.

Assistant City Manager David clarified by stating that a resolution allows staff to interpret the guidelines while an ordinance will require staff to make changes to the municipal code.

Council member Henson asked if the City should wait for Stopwaste.org to complete a model ordinance.

Bay-Friendly Landscaping Project Manager Eade stated that StopWaste.Org is waiting for the State to complete water efficiency regulations to compare with Bay-Friendly Guidelines. She stated that Hayward is ahead with the adoption of the Environmentally -Friendly Landscape policy and that she is impressed with staff's proposal which is more comprehensive than those of other bay area cities. In addition, StopWaste.Org is working with Build It Green to develop third party rater system that would be compatible with LEED and Green Point Rated. The program would cover 30 water districts and local governments. There would be Top 10 Bay-Friendly Landscaping Basics and a score card would be available on-line.

Planning Commissioner Mendall asked if a visual check of a property would be sufficient to indicate if the guidelines or approved plan has been met.

Project Manager Eades stated that a visual check is insufficient. Landscape plans require verification including plant species, size, spacing, irrigation system.

Assistant City Manager David confirmed the Committee has requested that the guidelines include all new construction.

Mayor Sweeney requested that staff return with new construction-single-family residential guidelines.

Council member Quirk suggested that the Community input is received in November prior to returning to the Committee for review.

Landscape Architect Koo stated that the City currently requires one 15-gallon size tree for each 50 feet of street frontage. She pointed out if a landscape and irrigation plan is required for every single-family home, it would place a significant burden on homeowners and asked the Committee to consider the factor of expense to homeowners.

Project Manager Eade stated that cities usually exclude single-family homes from landscape guidelines .

Planning Manager Rizk suggested compliance of new construction projects of 4 or more units.

Mayor Sweeney emphasized that the priorities of the city should be for new construction and larger projects. He requested that Staff return with suggestions for Single-Family Landscape Guidelines.

Planning Commissioner Mendall suggested that remodels of single-family homes be treated separately.

Council member Henson agreed with the suggestion of a 4 unit threshold but stated that smaller projects should not be completely exempt. He requested a simplified check list for single-family homeowners.

Planning Commissioner Loché pointed out that StopWaste.org will have a program by Summer of 2009, therefore, the city should implement simple guidelines and wait for guidelines that would be used by all municipalities. He expressed concern that the proposed guidelines and suggestions may be overreaching.

Commissioner McKillop expressed concern that it is difficult for staff to understand what the Committee is requesting. She stated that staff has done a good job and that she understands the proposed guidelines.

Mayor Sweeney clarified that staff should come back with guidelines that include thresholds and ideas how to address single-family home remodels.

City Manager Fran David confirmed his request.

David Stark addressed the Committee suggesting a community meeting that asks for the best practices used by the “Green Thumbs.” He also suggested that the city find a way to reach out to the residents who wouldn’t necessarily be informed of the guidelines.

Mayor Sweeney pointed out that the Public Works Department does water conservation community outreach that includes a rebate program. He requested that staff assist Mr. Stark in obtaining program information.

Assistant City Manager requested Mr. Stark to assist to distribute this information to the Real Estate community.

Mr. Stark agreed stating that it is a “win-win”.

Project Manager Eade indicated that StopWaste.Org has a very large home gardening program that includes Bay-Friendly Garden tours, a compost program, the distribution of Bay-Friendly Guidelines, outreach to home gardeners and workshops. She also indicated that she would work with Hayward Staff to create promotional materials and assemble a packet to distribute.

Landscape Architect Koo continued that the city currently implements a Tree Removal Program, is available to answer landscape questions, and distributes information to home gardeners.

Council member Henson mentioned that the StopWaste.Org Board discusses forming partnerships with retailers to who will assist customers to find appropriate plants for home gardens.

Project Manager Eade stated that there are currently eight nurseries in Alameda County who label Bay-Friendly plants. She indicated that those with labels sell

better. However, it has been difficult to deal with national chains and that StopWaste.Org is focusing on the independent nurseries first.

- VII. Next Meeting: November 5, 2008 – Revisions Associated with Hayward Environmentally Friendly Landscape Guidelines and Checklist for Private Developments, Climate Action Plan Update and Committee Discussion of Future Agenda Topics
- VIII. Adjournment – 5:53 p.m.



**DATE:** October 1, 2008

**TO:** City Council Sustainability Committee

**FROM:** Director of Community and Economic Development Department

**SUBJECT:** Proposed Hayward Environmentally Friendly Landscape Guidelines and Checklists for Private Development Projects

## **RECOMMENDATION**

That the Sustainability Committee reviews and comments on this report, and recommends adoption of the attached resolution to the City Council.

## **SUMMARY**

In response to direction given by the Committee at its last meeting on September 3, staff has developed a new set of sustainable landscaping guidelines and checklist for new single-family home construction and single-family remodels and additions, which includes a plant list. They are designed for the homeowner and non-landscape professional. The Committee also encouraged higher standards for new, larger developments and therefore, staff is still recommending utilization of a more comprehensive set of guidelines and checklist for such projects.

Staff is proposing three levels of thresholds:

1. A set of guidelines and associated checklist required for use by landscape professionals (Exhibit B), applicable to more substantial projects, such as those involving four or more new single-family homes, new multi-family development, new commercial (non-residential) development, commercial tenant improvements or additions entailing more than 5,000 square feet of landscape area renovations.
2. A set of guidelines and associated checklist required for use by a homeowner (Exhibit C) for developments consisting of one to three new single-family homes, including duplexes, or for major remodels or additions that increase existing building footprint area by more than 25 percent.
3. Proponents for smaller residential and commercial remodels and additions would not be required to implement checklists items, but would be encouraged to do so.

Exhibit A summarizes these three threshold levels and staff's recommendation to the Committee.

## **BACKGROUND**

The Committee reviewed a draft set of guidelines and checklist that were presented to it by staff at its September 3 meeting. The Committee generally expressed support to wait to adopt an ordinance until Stopwaste.org fully developed its Bay Friendly system, including developing a checklist and third party rater system for single-family developments, and until the State released its new Model Water Efficiency standards, anticipated for January.

However, the Committee expressed a desire to have standards for landscaping for single-family developments, to be user-friendly to the non landscape-professional homeowner. The Committee also encouraged more substantial requirements and associated guidelines and checklist for larger developments, intended for use by landscape professionals.

## **DISCUSSION**

As indicated previously, staff is still recommending adoption of both sets of guidelines and checklists via a resolution (see draft attached). Where existing City ordinance provisions conflict with the guidelines and checklists, such provisions would be applicable; however, staff has tried to capture such provisions in the attached documents.

The more substantial set of guidelines and checklist (Exhibit B) is still recommended for larger projects, as indicated in Exhibit A, including those entailing four or more single-family unit developments, new multi-family developments, and commercial (non-residential) developments encompassing new development or landscape renovations exceeding 5,000 square feet of area. The guidelines and checklist have been revised slightly from the version presented to the Committee at its September meeting to reflect that they are intended for use by landscape professionals, who would typically be involved with such developments. Staff is recommending that for such projects, the checklist be required to be submitted, and the checklist items be incorporated into plans and construction. For smaller multi-family residential and commercial remodels and additions (less than 5,000 square feet of landscape renovation), the guidelines and checklist are only be encouraged to be utilized. As is the current practice, the City's landscape architect would review plans and conduct inspections to ensure required compliance for these larger projects involving landscape professionals.

The second set of guidelines and checklist (Exhibit C) have been developed in response to the Committee's previous comments, and are for single-family developments encompassing less than four units or less than 25 percent footprint expansion, and are intended to be used by the non landscape professional (e.g., homeowner). Staff is recommending that submittal of the checklist be required with building permit application submittals, and that the checklist items, which include provisions for planting and irrigation, be incorporated into projects. To simplify the proposed process, staff has eliminated hillside development from the criteria of requiring the more involved checklist. However, the single-family checklist includes provisions that limit the amount of impervious surfaces and turf on sloped properties.

The guidelines and checklist also include gardening tips and a plant list for guidance, to assist homeowners with compliance and desired landscaping practices. Staff would review plans to ensure required checklist items are incorporated into plans, but would not typically conduct final inspections

of such landscaping, but require submittal of a verification form from the homeowner or project proponent, indicating compliance with the approved plans. Such form is attached to the guidelines and would be placed in the project file.

## **FISCAL IMPACT**

Additional staff time will be required to review submittals of the newly required checklists, as well as to ultimately prepare and process amendments to existing ordinances and develop new City standard details that incorporate the provisions of the guidelines and checklist. City ordinances that will require amending are the *Off-Street Parking Regulations* for parking lot landscaping, *Tree Preservation Ordinance* provisions for optional tree mitigation measures, each zoning district's provisions related to landscape minimum design and performance standards in the *Zoning Ordinance*, and the *Water Efficient Landscape Ordinances*. Staff estimates 200 hours annually will also be required to periodically review and update the Guidelines and Checklist to keep it current and reflective of current laws and trends, which will involve participating in workshops, seminars and discussion sessions with other local agencies and Stopwaste.org.

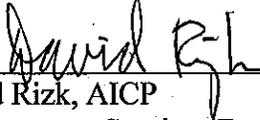
Costs to the City associated with relying on Stopwaste.org's Bay Friendly Landscaping program would be less, since the City would rely on that system being updated by Stopwaste.org staff. Also, a third party rater system being developed, whose utilization may prove to be desirable, which would reduce staff time and associated costs in ensuring scorecard measures are implemented.

The cost impacts to the development community due to differences between traditional and recycled landscape materials such as recycled wood, organic compost, organic fertilizer, and mulch, are becoming minimal. Also, because of the newly developed second set of guidelines and checklist, the cost to the individual homeowner would be less, since there would not be a need to hire a landscape professional to prepare plans. There also will be significant long-term cost savings due to importing less topsoil by stockpiling more material on site, hauling less material to landfills, and reduced costs for maintenance and water use. The immeasurable benefits will be healthier soil for plants that will result in enhanced landscaping, improved air quality, and a healthier environment for the community and natural habitats.

## **NEXT STEPS**

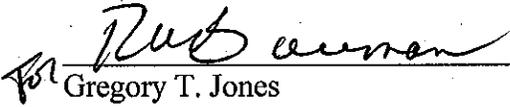
Staff will incorporate any direction from the Sustainability Committee and present such recommendation to the City Council and Planning Commission at a joint work session in early November, which would soon be followed by a community meeting, prior to public hearings before the Planning Commission and City Council in December of this year and January of next year. Note staff is recommending that the Council hearing be delayed until after the holidays, versus the proposed more aggressive schedule presented previously.

*Recommended by:*



\_\_\_\_\_  
David Rizk, AICP  
Development Services Department Director

*Approved by:*



\_\_\_\_\_  
for Gregory T. Jones  
City Manager

**Attachments:**

- Exhibit A: Summary Matrix of Staff Recommendations for Private Developments
  - Exhibit B: Draft Hayward Environmentally Friendly Landscape Guidelines and Checklist For Landscape Professionals
  - Exhibit C: Draft Hayward Environmentally Friendly Landscape Guidelines and Checklist for Single-Family Developments
- Draft Resolution

**SUMMARY OF REQUIREMENTS FOR PRIVATE DEVELOPMENTS  
HAYWARD ENVIRONMENTALLY FRIENDLY LANDSCAPE**

Project Type	Staff's Recommendation	Anticipated Meeting Dates
<b>SINGLE-FAMILY RESIDENTIAL PROJECTS (1 or 2 units per building, including duplexes)</b>		
New Single Family Residential Projects of 4 or More Dwellings	Submittal of Landscape Professionals Checklist and incorporation of checklist measures into project are required	11/4/08 – Introduce the Guidelines and Checklists to PC & CC at a joint work session
New Single Family Residential Projects of 1 to 3 Dwellings	Submittal of Single-Family Checklist and incorporation of checklist measures into project are required	Mid-November – Community meeting
Single Family Remodels and Additions that Exceed 25% Expansion of Existing Building Footprints		12/4/08 – PC recommends adoption of the Guidelines and Checklist to the CC
All Other Remodels and Additions	Submittal of Single-Family Checklist and incorporation of checklist measures into project are encouraged	1/13/08 – CC adopts the Guidelines and Checklist
<b>MULTI-FAMILY RESIDENTIAL PROJECTS (3 or more units per building)</b>		
New Multi-Family Residential Projects	Submittal of Landscape Professionals Checklist and incorporation of checklist measures into project are required	11/4/08 – Introduce the Guidelines and Checklists to PC & CC at a joint work session
Multi-Family Remodels and Additions that Exceed 5,000 Square Feet of Landscape Renovation		Mid-November – Community meeting
All Other Multi-Family Remodels and Additions	Submittal of Landscape Professionals Checklist and incorporation of checklist measures into project are encouraged	12/4/08 – PC recommends adoption of the Guidelines and Checklist to the CC  1/13/08 – CC adopts the Guidelines and Checklist
<b>COMMERCIAL PROJECTS (non-residential projects)</b>		
All New Commercial Projects	Submittal of Landscape Professionals Checklist and incorporation of checklist measures into project are required	11/4/08 – Introduce the Guidelines and Checklists to PC & CC at a joint work session
Commercial Tenant Improvements, Remodels and Additions that Exceed 5,000 Square Feet of Landscape Renovation		Mid-November – Community meeting
All Other Commercial Tenant Improvements, Remodels and Additions	Submittal of Landscape Professionals Checklist and incorporation of checklist measures into project are encouraged	12/4/08 – PC recommends adoption of the Guidelines and Checklist to the CC  1/13/08 – CC adopts the Guidelines and Checklist



CITY OF  
**HAYWARD**  
 HEART OF THE BAY

**HAYWARD ENVIRONMENTALLY FRIENDLY LANDSCAPE  
 GUIDELINES AND CHECKLIST  
 FOR THE LANDSCAPE PROFESSIONAL**

September, 2008

✓ *Applicability of these Guidelines and Checklist*

These guidelines and checklist are intended for use by a landscape professional and are to be used for private developments comprising:

- more than three new single-family units;
- new multi-family residential projects (defined as a project comprising more than three units per building);
- multi-family residential remodels and additions encompassing more than 5,000 square feet of landscape area renovation;
- new commercial projects (defined as projects entailing new non-residential development); and
- commercial tenant improvements, remodels and additions that exceed 5,000 square feet of landscape area renovation.

Although not required, the use of these guidelines and checklist for smaller multi-family and commercial project remodels and additions is encouraged to promote water conservation and sustainable landscape practices.

For projects encompassing one to three new single-family units or single-family remodels or additions, refer to the City's Environmentally Friendly Landscape Guidelines and Checklist for Single-Family Development.

✓ *Purpose of Guidelines and Checklist?*

This set of Guidelines and Checklist is provided to assist landscape architects and designers in preparing landscape and irrigation plans that will comply with the City's landscaping standards, guidelines, and submittal requirements. The Guidelines and Checklist incorporate the nine required practices for Bay-Friendly Landscape by StopWaste.Org\*, and incorporate the updates to the Model Water Efficient Landscape Ordinance from the California Department of Water Resources. The Guidelines and Checklist are derived from the City's Zoning Ordinance, Water Efficient Landscape and Tree Preservation ordinances, Off-Street Parking Regulations, Security and Traffic Code, Design Review Guidelines, Landscape Beautification Plan, Hillside Design and Urban/Wildland Interface Guidelines, Bay-Friendly Landscape Guidelines\*, and the updated Model Water Efficient Landscape Ordinance by the Department of Water Resources. Certain

Department of Development Services  
 Planning Division

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items may not pertain to some projects, and should be noted as such by the professional on the checklist. Please contact the City Landscape Architect at (510) 583-4208, or go to [www.hayward-ca.gov/municipal](http://www.hayward-ca.gov/municipal) for additional information.

\*Bay-Friendly Landscape Guidelines are established by StopWaste.Org, a program funded by the Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board. For more information, go to [www.StopWaste.org](http://www.StopWaste.org)

### ✓ ***Who can prepare landscape plans?***

Landscape plans shall be prepared by a licensed landscape architect with expertise to prepare plans that comply with water efficient landscape design principles in accordance with State laws and the above mentioned ordinances and guidelines. Landscape plans consist of layout, landscape grading, planting, irrigation and landscape construction detail plans. Different project types will require varying level of completion. All required plans shall be wet stamped to include signature and license number of the landscape architect preparing the plans.

### ✓ ***When are landscape plans and checklist submitted?***

If planning approval is required for a project (i.e., site plan review, use permit, planned development or single-family hillside projects), *conceptual* landscape and irrigation plans are required when development plans are submitted to the Planning Division. Minimum standards for conceptual landscape and irrigation plans are as follows:

- The conceptual landscape plans shall be prepared on an accurately surveyed plan that matches the architectural, site or civil plan.
- The landscape plan shall indicate the botanical name, common name, size, location and massing of different plant types; provides all existing trees shown on the survey plan; and trees designated to be preserved or removed.
- A comprehensive arborist report prepared by a certified arborist shall be required when any protected tree is proposed to be removed for development. See the Tree Preservation Ordinance (HMC Chapter 10, Article 15) for guidelines in preparing an arborist report.
- The conceptual irrigation plan shall include designation of landscape zones per water use, proposed water meter location, static water pressure (psi) at point of connection, performance standards, and backflow prevention device locations.

Following planning approval, submit *detailed* landscape and irrigation plans prepared by a licensed landscape architect, and completed the landscape design checklist and attachments in this document to the Building Division for building permit application review, unless otherwise specified in the planning approval process. Issuance of a building permit is contingent on approval of landscape plans by the City Landscape Architect.

### ✓ ***What is required at completion of landscaping?***

A landscape inspection and approval by the City Landscape Architect is required upon completion of landscape installation prior to issuance of a Certificate of Occupancy. An irrigation schedule and *Document of Final Acceptance* (Attachment C) must be submitted to the City Landscape Architect prior to requesting an inspection. The *Document of Final Acceptance* shall be prepared by the project landscape architect, or by a licensed landscape contractor when permitted by the City Landscape Architect.

## LANDSCAPE IMPROVEMENT PLAN GUIDELINES AND CHECKLIST

Please check and circle all applicable items.

Project Type:  Single Family Residential: new (\_\_\_ of units) / remodel/addition / hillside/flat  
 Multi-Family Residential: new (\_\_\_ of units) / remodel/addition / hillside/flat  
 Commercial (non-residential): new / remodel/addition

Project Size: Total Construction \_\_\_\_\_ sq. ft. Landscaping \_\_\_\_\_ sq. ft.

Project Name: \_\_\_\_\_ Building Permit No.: \_\_\_\_\_

Project Address: \_\_\_\_\_ Planning Permit No.: \_\_\_\_\_

<p><b>Required Landscape Statement Submittal:</b> address the following and provide the statement on the plan</p>
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- Outdoor spaces, pathways, and edges defined with landscaping.
- Adjacent land uses buffered with landscaping.
- Landscaping complements adjacent landscaping.
- Landscaping complements architectural style and form of building, accentuates building features and entrances, and is compatible with building colors and materials.
- Limit the use of impervious paving types, and use porous paving whenever possible with porous concrete and asphaltic paving, interlocking pavers and pavers.
- Maximize usage of recycled material in all aspects of construction material.
- Parking, loading, and service areas, utilities, solid building surfaces, retaining and masonry walls, and fences are screened with landscaping.
- Plants preserve required vehicular and pedestrian clearances, 13'-6" for trucks and 8'-6" for pedestrians.
- Mature plants will fit space and will not cause damage to pavement or underground utilities.
- Plants shall be selected to preserve sight distance at site entries/exits and internal circulation routes without shearing.
- Deep-rooted plants on slopes for erosion control; jute mesh netting or a comparable erosion control material on slopes 3:1 or steeper or on slopes showing signs of erosion.
- Plants display variations in texture and form, with attention to flowering shrubs and seasonal color.
- For projects located along the arterial streets, street frontage landscaping is consistent with guidelines in **Landscape Beautification Plan (LBP)**.

*Comment: Arterials covered by the LBP consist of Jackson Street, "A" Street, Foothill Boulevard, Hesperian Boulevard, Mission Boulevard, Winton Avenue, Harder Road, Tennyson Road, Industrial Boulevard/Parkway, "B" Street, Second Street, Fairview Avenue, and Hayward Boulevard. Copies of the LBP are available at the Planning Division and on the City's website at [www.hayward-ca.gov](http://www.hayward-ca.gov).*

- ❑ Projects located in the Hayward hills and in the urban/wildland interface areas must conform with Hayward's **Hillside Design and Urban/Wildland Interface Guidelines**  
*Comment: The Hayward hills are generally defined as the areas east of Mission Boulevard and south of "D" Street. Properties subject to the interface provisions are designated by the Hayward Fire Department and typically include sites that abut open space or riparian corridors. Copies of the Guidelines are available at the Planning Division and on the City's website at [www.hayward-ca.gov](http://www.hayward-ca.gov).*

<b>Submittal Requirements</b>
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**Detailed Landscape Improvement Plan (Construction Documents):**  
*please check all applicable items*

- ❑ Show property lines and street names.
- ❑ Provide existing and proposed buildings, structures, retaining walls, fences, above and underground utilities, meters, paved areas, and other site improvements.
- ❑ Provide contour lines and/or spot elevations where landscaped areas exceed 10 percent slope as necessary for the proposed finished grade.
- ❑ Provide legend summarizing botanical and common name, quantity, size, and spacing of all plant materials.
- ❑ Show location of all proposed plant materials.
- ❑ Show all existing trees and plant materials to be removed or retained.
- ❑ When applicable, recycle minimum 50% of landscape construction and green waste.
- ❑ Where applicable, specifications for stockpiling and reapplying site topsoil and/or imported topsoil.
- ❑ Specify California native, Mediterranean or other climate adapted plants that require occasional, little or no summer watering for 75% of all non-turf plants.
- ❑ Limit using plant species require shearing.
- ❑ Do not specify species listed by Cal-IPC (California Invasive Plant Council) as invasive in the San Francisco Bay Area.
- ❑ *Plants well-suited to microclimate and soil conditions at site, require minimal water once established, are relatively free from pests and diseases, and are generally easy to maintain.*

*Comment: Refer to EBMUD's **Water-Conserving Plants and Landscapes for the Bay Area, and the latest publication from EBMUD Plants and Landscapes for Summer-Dry Climate of the San Francisco Bay Region**, or Bob Perry's **Trees and Shrubs for Dry California Landscapes for recommended water-conserving plants.***

- ❑ Plants with similar water needs to be grouped together (See example, Attachment D).
- ❑ Turf should not be proposed on slopes exceeding 10 percent or areas narrower than 8 feet.
- ❑ Limit the use of turf to 25 percent of the total landscaping area for all projects including single family residential homes unless used for sport or recreational function.

- ❑ Where turf is proposed, a drought tolerant Tall Fescue or variety with similar water requirement should be specified.
- ❑ Provide Tree Mitigation Summary Chart: All removed protected trees must be mitigated per Tree Preservation Ordinance (HMC Chapter 10, Article 15). The summary chart must provide the method of meeting the mitigation goal. Tree mitigation method includes, but not limited, to transplanting existing specimen trees, up-sizing required trees, and replacement above and beyond required trees.
- ❑ Details and specifications for tree staking, soil preparation, and other planting work. City Standard Street Tree Staking Detail SD-122 is required for street tree planting and is recommended for other trees on the project.
- ❑ Promote integrated and/or organic pest control practice for weed control.
- ❑ Jute mesh netting or a comparable erosion control material on slopes 3:1 or steeper or on slopes showing signs of erosion.
- ❑ Minimum three-inches of recycled chipped wood mulch in Dark Brown color or greenwaste in all planting areas except in turf areas.
- ❑ Replace nitrified soil conditioner and commercial fertilizer with minimum 9 cubic yards of organic compost per 1,000 square feet (1:4 ratios) of all planting areas and rototill thoroughly into minimum top 9 inches of soil.
- ❑ Prepare planting holes to be two times of a root ball. Backfill mix shall be 1 part organic compost and 2 parts native soil.
- ❑ Trees shall be planted a minimum of 5 feet from sewer, water, gas, cable, and electrical lateral services lines as well as from any paving and structures. Trees shall also be located a minimum of 7 feet from utility boxes, 15 feet from a light pole, and a minimum of 30 feet from the face of a traffic signal, or as otherwise specified by the City. Provide root barriers when a tree is located within 7 feet of a structure or edge of paving.
- ❑ Root barriers shall be installed along the edge of structure or paving or curb.
- ❑ Minimum planting area shall be five feet measuring from back of the curb to back of the curb, or from any hard surfaces to all directions.
- ❑ **Soils Report** (if required by City Landscape Architect) – Report shall be prepared by a qualified soil and plant laboratory. Recommendations for soil amendment with organic compost and organic fertilizers shall be indicated on planting plan.
- ❑ **Document of Final Acceptance** – See Attachment C. Submit Document of Final Acceptance when landscaping is completed, prior to issuance of a Certificate of Occupancy.
- ❑ **Setbacks** – Required front, side street, side and rear yards to be fully landscaped and irrigated except for permitted paved areas and other approved encroachments. When landscape setback areas are used for Stormwater Treatment such as bio-swale, the setback areas shall be increased to meet required screen tree planting.

*Comment: Confirm with property owner/applicant or Planning Division regarding required setbacks for development. The use of decorative rocks, decomposed granite, or wood mulch for the sole purpose of landscaping is not permitted.*

- ❑ **Street Trees – Minimum one 24"-box tree shall be provided for every 20 to 40 lineal feet of street frontage for all commercial and multi-family residential projects depending on tree species and as directed by City Landscape Architect. Minimum of one 15 gallon tree shall be planted within the required front and side yard setback for every 50 feet or fraction thereof frontage for all single family residential projects regardless of construction type: new,**

**additions or remodels. Any missing, dead, or dying street trees shall be replaced with 15 gallon trees for all single family residential projects regardless of construction type: new, additions or remodels. Mitigating street trees for non-single family residential project, see Tree Preservation Ordinance.**

*Comment: Refer to City's List of Recommended Street Trees. City Landscape Architect may also specify a tree for certain streets:\_\_\_\_\_.*

- **Parking Lot Landscaping – All parking lot shade trees shall be medium to large size tree types.** A parking lot shade tree shall be provided at every six spaces, or provide 50% shades to total paved areas including driving aisles and/or driveways in 15 years. All parking rows shall be capped with landscape islands. The end capped landscape islands shall have minimum two trees. Shade trees can be planted in finger islands, or continuous landscape medians. Minimum tree size shall be 15-gallon. All landscaping shall be completed with trees shrub and groundcover planting. Alternative shade structure such as carports or solar panel roofs or trellis can be used for providing minimum 50% shading of entire parking lot including parking aisles and/or driveways. Continuous planting islands are encouraged to allow for multiple tree plantings and increased rootable soil volume. Combining a row of compact car parking spaces with a row of standard car parking spaces is encouraged to create central landscape medians. The landscape medians can incorporate vehicle overhangs into landscape areas to create deeper landscape areas.
- **Tree Wells in Parking Lot** – Tree well design may be allowed when adequate rootable soil volume (min. 85 cubic feet) is incorporated into the tree well planting.
- **Soil Volume** – Tree wells in parking lots should be excavated to a depth of 3 feet or greater before being backfilled. The use of structural soil mixes is encouraged to promote root growth and to reduce the potential for root invasion into parking lot paving especially where irregular tree wells are proposed.
- **Parking Lot Screening** – parking areas screened from neighboring residents, businesses, or street with low shrubs, and/or walls; maximum 30 – 36 inches high per City's Security Ordinance; shrubs will create a continuous 30 – 36 inches high screen at mature growth. The height is measured from the top of the curb.
- **Parking Lot Lighting** – Light standards no greater than 16 feet in height are strongly encouraged to minimize conflicts with required shade tree locations or growth.
- **Masonry Walls and Fences** – buffered with shrubs or vines where facing a street or driveway.
- **Parcels Abutting BART Tracks (or within 500 feet and in direct view of BART tracks)** – 10' wide landscape strip provided along property line, with minimum one 15-gallon tree every 20 lineal feet.
- **Commercial or Industrial Use Abutting Residential** – minimum one 15-gallon tree provide for every 20 lineal feet within required side or rear yards.
- **Curbs** – landscape areas adjoining driveways and/or parking areas separated by 6" high Class "B" Portland Cement concrete curb unless flush curb or slotted curb are proposed for Stormwater Treatment and approved by the City staff. Cobblestones shall be placed behind each slotted curb to prevent soil erosion. Refer to City of Hayward Standard Details for Standard Sidewalk, Curb and Gutter, Island Curb and Curb Ramp Sections SD-108.
- **Drive-in Establishments** (e.g., service stations, car washes, fast-food restaurants, etc.) – contact Planning Division for specific landscaping standards.
- **Security** – landscaping will not obstruct building or parking lot light fixtures, address signs, building entrances, and windows.

- Sight Distance** – for corner lots, shrubs kept to maximum 3 feet high (measured from gutter line) and tree branches kept to minimum 8 feet above the grade at the center of the intersection. (Not applicable to intersections controlled by signs or signals.

**Other Landscaping Requirements** (e.g. conditions of approval for planning permit):

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Detailed Irrigation Improvement Plan (Construction Documents):**

*please check all applicable items*

- A separate water meter is required for projects with 5,000 Square Feet or more of irrigated landscaped area.
- Recycled or re-circulating water for water features and irrigation is encouraged.
- Submit Landscape Water Use Statement** – See Attachment A.
- Submit Irrigation Schedule** – See Attachment B. Submit Schedule when landscaping is completed, prior to issuance of Certificate of Occupancy.
- Estimated Landscape Water Use (ELWU) does not exceed Landscape Water Allowance (LWA). *See Attachment A.*
- Layout of the irrigation system, (i.e. water meter, backflow prevention device, pressure regulator, automatic controller, main and lateral lines, valves, sprinklers, bubblers, drip emitters, quick couplers, and filters where applicable.
- Legend summarizing the manufacturer name, model number, and size of all components of the irrigation system.
- Static water pressure (psi) at the point of connection. (Water pressure at City main available from Utilities Administration, 583-4727.)
- Flow rate (gallons per minute) and design operating pressure (psi) for each valve; and precipitation rate (inches per hour) for valves with sprinklers.
- Installation details for irrigation components.
- Automatic controller shall be equipped with multiple programs and repeat cycle capabilities with a flexible calendar program.
- Adopt Smart Water Application Technology and irrigation equipment including, but not limited to, controllers, moisture sensors, emission devices and valves.
- On slopes over 25 percent, or 4:1 grade, irrigation system shall consist of drip emitters, bubblers or sprinklers with maximum precipitation rate of 0.85 inches per hour.
- Each valve shall irrigate an area with similar site, slope, and soil conditions and plants with similar watering needs.
- Turf and non-turf areas shall be irrigated on separate valves.
- Drip emitters and sprinklers shall be on separate valves.

- ❑ Drip emitters or two flood or pop-up type bubbler are provided for each tree; bubblers shall not exceed 1.5 gallons per minute per device. Bubblers for trees shall be on separate valve, unless otherwise permitted by City Landscape Architect. Bubblers are not to be placed inside of aeration tubes.
- ❑ Two aeration tubes per each tree are required: the tube shall be 30 inches long and 4 inches in diameter PVC perforated drainpipe with slotted cover, and drain rocks shall be filled in and around the pipe.
- ❑ Sprinklers shall have matched precipitation rate on each valve.
- ❑ Drip or subsurface irrigation is to be specified for planting including turf area within 24" of hard surface.
- ❑ Check valves are to be specified where low-head drainage may occur due to elevation differences.
- ❑ Pressure compensating valves and sprinklers are specified where significant variation in water pressure could occur.
- ❑ Sprinklers spaced at maximum 1.0 times radius of head for square and maximum 1.2 times radius of head for triangular spacing.
- ❑ Rain shut-off device specified.
- ❑ Pressure regulator provided where static water pressure exceeds maximum recommended operating pressure.
- ❑ All irrigation lines to be underground, including drip systems, except for temporary installations.
- ❑ Lateral (non-pressure) irrigation lines are to be 12" minimum below grade. Main (pressure) irrigation lines are to be 18" below grade, minimum, and 24" under drivable surfaces. All lines under pavement must be sleeved.
- ❑ Backflow prevention device shall be mounted on a concrete pad and provided with a strong box type enclosure painted in black or dark green with a lock, and a polar blanket type freeze protection.

----- end of the checklist -----

## **Tree Preservation**

- ❑ See Tree Preservation Ordinance (**HMC Chapter 10, Article 15**).
- ❑ All trees and large shrubs on the site should be shown on a salvage/demolition plan. Trees to be preserved, trimmed, or removed must be indicated on the plan. Trees in good health that are proposed to be removed shall be replaced with a tree of equal size and value.
- ❑ When tree mitigation goals can't be achieved through allowed tree mitigation method as described in Tree Preservation Ordinance, cash mitigation is recommended as an option to a designated City tree fund.
- ❑ A minimum replacement tree size shall be 36"-box tree except for single family residential homes and exceptions as stated in the ordinance. A minimum replacement tree size shall be 24"-box tree for a single family home.

*Comment: Indicate location, trunk diameter, species, and approximate dripline of trees. Retain significant trees and native vegetation that are in good condition, and avoid grading and paving within the dripline of the trees. The City Landscape Architect may require an arborist report.*

- ❑ Tree Protection measures shall be noted on the grading, site, and landscaping plans, if applicable. See below for recommended minimum tree protection measures.
- ❑ A separate tree removal permit must be obtained in person prior to removing any tree designated as protected per Tree Preservation Ordinance; the permit must be signed by the City Landscape Architect.

*Comment: Replacement trees are typically required for trees authorized for removal, which will be specified by City Landscape Architect based on condition, size, species, and location of tree(s) to be removed. Show required replacement trees on planting plan.*

### **TREE PROTECTION NOTES**

1. Tree branches interfering with construction equipment shall be properly pruned **prior** to commencement of construction. Pruning shall be as approved by the City and shall comply with City approved practices.
2. A protective fence shall be placed at the dripline of the existing trees during the entire construction period. No work shall occur within the dripline except under the direct supervision of a certified arborist approved by the City.
3. Soil compaction and grading shall be avoided within the dripline of the trees. Maintain a positive drainage away from tree trunk. Irrigation shall be avoided under native oak trees.
4. No storage of materials or equipment shall occur within 25 feet of the dripline of trees.
5. All roots 1" or larger that must be severed shall be cut manually to produce a clean cut and treated with a tree sealant. Boring, rather than trenching shall be required where it is unavoidable for piping to cross through the dripline of a tree.
6. Contractor shall be responsible for providing comparable replacement trees for any existing trees that are found by the City to be irreparably damaged due to construction activity.

## **STREET TREE PLANTING SPECIFICATIONS**

1. Refer to City of Hayward Standard Details for Street Tree Planting SD-122.
2. Tree shall be healthy, disease and insect-free, well-rooted, and properly trained with a straight trunk that can stand upright without support. Tree shall exhibit a central leader, or a main branch that can be trained as a central leader. Branches shall be well-developed and shall be evenly and radially distributed around the trunk. Root ball shall not exhibit kinked or circling roots. After planting, no roots shall be left exposed.
3. Tree shall comply with federal and state laws requiring inspection for plant diseases and pest infestation. Clearance from the county agricultural commissioner, as required by law, shall be obtained before planting trees delivered from outside the county.
4. Prior to planting tree, determine the location of existing or future underground utilities. Locate the tree a minimum of 5 feet from lateral service lines and driveways. Locate the tree a minimum of 15 feet from light pole, and a minimum of 30 feet from the face of a traffic signal, or as otherwise specified by the City.
5. Tree pit shall be tested for proper drainage prior to planting tree. Fill pit with water. If water remains after a 24-hour period, auger three (3) 4-inch diameter by 3-foot deep holes at the bottom of the tree pit. Backfill with drain rock.
6. Set tree in an upright and plumb position. As much as possible, tree shall be positioned such that dominant branches are parallel to the roadway and are oriented away from potential conflicts.
7. If required by the City, a pressure-compensating bubbler, or drip emitters, shall be provided to each tree.
8. Depending on the planter strip width, or the tree well size and the tree species being planted, a 24 inch deep root-barrier may be required by the City to be placed between the root-ball and the curb and/or sidewalk. Length of strip barrier or size of box will be specified by the City.
9. Stakes are to be removed when the tree trunk diameter meets or exceeds the diameter of the stake.

## ATTACHMENT A LANDSCAPE WATER USE STATEMENT

### **General Instructions:**

This statement shall be submitted with the planting and irrigation plans and is the basis for achieving a water efficient landscape design. Part One should generally be completed before preparing the planting plan. Part Two should be completed after preparing a preliminary planting plan. The Landscape Water Allowance (LWA) calculated in Part One shall not exceed the Estimated Landscape Water Use (ELWU) calculated in Part Two.

For design purposes, the LWA establishes an "annual water budget" for the landscaped area within a project. It is based on evapotranspiration data (ET) for the Hayward area and the total square footage of irrigated landscaped area.

The ELWU is determined from the planting and irrigation plans for a project and provides an estimate of the water annually needed to keep the landscaping healthy and attractive.

A sample Landscape Water Use Statement for a hypothetical project is attached for illustration.

Preparing landscaping plans that do not exceed the LWA or "annual water budget" requires an emphasis on water-conserving plants, although a modest amount of turf or other non-drought tolerant plants will still be possible. Following are suggestions for modifying the planting and irrigation plans to reduce the landscaping water use for a project, if found to be necessary:

- Group plants with similar water needs, thereby allowing for a more efficient irrigation design.
- Reduce the amount of turf or other non-drought tolerant plants. Concentrate these plants in highly visible areas or areas targeted for pedestrian or recreational activities.
- On less visible and more remote areas of a site, specify extra-drought tolerant plants that can survive with minimal water after two years. Refer to EBMUD's ***Plants and Landscapes for Summer-Dry Climates of the San Francisco Bay Region*** for suggestions.
- Where appropriate, change spray sprinklers to stream sprinklers, bubblers, or drip emitters to improve irrigation efficiency.
- In narrow planter strips (less than 8 feet wide), use drip or subsurface irrigation and do not specify turf.

**Specific Instructions:**

**Part ONE**

**Box A- Enter** the total square footage of irrigated landscaped area within the project.

**Box B-** Calculate the Landscape Water Allowance (LWA) for a project by multiplying the number in Box A by 20.8.

**Part TWO**

*First*, designate "landscape zones" on the preliminary planting plan. Each landscape zone should consist of plants with similar water needs, area with similar microclimate (i.e., slope exposure, wind, etc.) and soil conditions, and areas that will be similarly irrigated. A landscape zone can consist of an area served by one or several valves.

*Next*, complete the table in Part TWO as follows:

- Landscape Zone** Enter symbol corresponding to the designation on the planting plan.
- Area (LZ)** Enter square footage of the landscape zone.
- Plant Factor (PF)** Enter the PF from Table A below that most closely describes the type of plants in the landscape zone.
- Irrigation Efficiency (IE)** Enter the IE from Table B below that describes the predominate type of irrigation in the landscape zone.
- ELWU** Calculate the Estimated Landscape Water Use (gallons per year) for each landscape zone using the following formula:  
  

$$ELWU = \frac{LZ \times PF \times 26}{IE}$$
- Totals**
  - a) Total the square footage of all landscape zones, which should equal the total irrigated landscaped area shown in Part One, Box A.
  - b) Total the ELWU for all landscape zones, which shall not exceed the LWA shown in Part One, Box B.

TABLE A - Plant Factors		TABLE B - Irrigation Efficiency	
<i>Plant Type</i>	<i>PF</i>	<i>Irrigation Type</i>	<i>IE</i>
Fescue Turf	0.7	Bubblers	0.85
Non- Drought Tolerant Plants	0.7	Drip Emitters	0.85
Water-Conserving Plants	0.5	Stream Sprinklers (in planter strips 8 feet or wider)	0.75
Extra Drought Tolerant Plants	0.2	Spray Sprinklers (in planter strips 8 feet or wider)	0.625
		Drip Emitters or Subsurface (in planter strips less than 8 feet wide)	0.85

EXAMPLE

**City of Hayward**

LANDSCAPE WATER USE STATEMENT

Project Name: Fashion Elite Commercial Building

Project Address: 21215 Main Street  
Hayward, CA 94541

Prepared by:

Creative Landscape Designs

CLA: #1956

Name

License or Cert. No. (if applicable)

195 Garden Lane

(510) 786-5678

Address

Telephone Number

Hayward, CA 94541

July 15, 1992

Date

**PART ONE Landscape Water Allowance**

Total Irrigated Landscaped Area  
(square feet)

**Box A**

**8,873**

X 20.8

Landscaped Water Allowance  
(Gallons per Year)

**Box B**

**184,558**

**PART TWO Estimated Landscape Water Use**

\*ELWU =  $\frac{LZ \times PF \times 26}{IE}$

Landscape Zone	Area (LZ) (square feet)	Plant Factor (PF)	Irrigation Efficiency (IE)	ELWU (Gallons/Year)
A	3,113	0.2	0.85	19,044
B	1,943	0.5	0.85	29,716
C	2,592	0.5	0.75	44,928
D	1,112	0.7	0.625	32,381
E	113	0.7	0.625	3,291
<b>TOTAL</b>	<b>8,873</b>			<b>129,360</b>

**City of HAYWARD**

**LANDSCAPE WATER USE  
STATEMENT**

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

\_\_\_\_\_

Prepared by:

\_\_\_\_\_  
Name

\_\_\_\_\_  
License or Cert. No. (if applicable)

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_

\_\_\_\_\_  
Date

**PART ONE**      *Landscape Water Allowance*

Total Irrigated Landscaped Area  
(square feet)

Box A

x **20.8**

Landscape Water Allowance  
(Gallons per Year)

Box B

**PART TWO**      *Estimated Landscape Water Use*

\*ELWU =  $\frac{LZ \times PF \times 26}{IE}$

Landscape Zone	Area (LZ) (square feet)	Plant Factor (PF)	Irrigation Efficiency (IE)	ELWU (Gallons/Year)
<b>TOTAL</b>				

## ATTACHMENT B IRRIGATION SCHEDULE

### **General Instructions:**

A monthly irrigation schedule shall be prepared to cover the initial 90-day plant establishment period and the following one-year period. The irrigation schedule shall be prepared by a landscape architect or designer, an irrigation designer, or a licensed landscape contractor. Attached is a suggested form for the irrigation schedule. The preparer may use this form or follow another appropriate format.

The irrigation schedule shall rely on the Estimated Landscape Water Use (ELWU) that was calculated for the project during the preparation of the landscaping plans. The schedule should also rely on monthly reference evapotranspiration (ET) data for the Hayward area, which is provided below. Once established, Tall Fescue turf can be maintained in an attractive manner at approximately 70 percent of the ET rate under normal weather conditions. Water-conserving plants typically need 50 percent or less of the ET under normal weather conditions. The amount of water applied for valve should also be adjusted for irrigation efficiency, local rainfall, specific site conditions, (e.g., exposure, slope, etc.) depths of root zone, and soil conditions, (e.g., water holding capacity, and infiltration rate). Ultimately, the amount and frequency of irrigation will need to be monitored regularly to adjust for plant growth, climatic changes, and site conditions.

For valves with overhead spray or stream sprinklers, set valves to operate between 9 p.m. and 8 a.m. to reduce water loss from wind and evaporation. Early morning irrigation is recommended for turf and ground cover. On slopes and soils with slow infiltration rates, program valves for multiple repeat cycles to reduce run-off.

<b>Estimated Monthly ET for Hayward Area*</b> (inches per year)												
<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann ET.</b>
1.5	1.5	2.8	3.9	5.1	5.3	6.0	5.5	4.8	3.1	1.4	0.9	41.8

- Based on historical data, extrapolated from 12-month normal year ET maps and U.C. publication 21246.

**SPECIFIC INSTRUCTIONS:**

- A. **Valve or – Station Number**                      Shall correspond to irrigation plan.
- B. **Plant Type-**                                      *Indicate either:*
- T**        -        Trees Only
  - WC**     -        Water-conserving trees, shrubs, and/or groundcover
  - ND**     -        Non-drought tolerant trees, shrubs, and/or groundcover
  - GC**     -        Groundcover only
  - L**        -        Turf
- C. **Irrigation Type-**                                *Indicate either:*
- SP**     -        Spray Sprinklers
  - ST**     -        Stream Sprinkler
  - B**        -        Bubblers
  - D**        -        Drip Emitters
- D. **Flow Rate-**                                      Indicate total gallons per minute or hour flowing through Valve during normal operation (available on irrigation plan).
- E. **Precipitation-Rate**                              For valves with spray or stream sprinklers **only**, indicate the average precipitation rate in inches per hours (available on irrigation plan, from irrigation manufacturer, or through field test.)
- F. **Month-**    Begin irrigation schedule with the month that landscaping work is completed.
- G. **Run Time-**                                        Indicate total minutes per day valve will be operating.
- H. **Number of-Day/Week**                            Indicate number of days per week valve will be scheduled to operate.





**CITY OF HAYWARD**  
**ATTACHMENT C**  
**DOCUMENT OF FINAL ACCEPTANCE**

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

Building Permit No. \_\_\_\_\_ Planning Permit No.: \_\_\_\_\_

I/We hereby certify the following:

1. The landscape work for the above project has been completed in full compliance to the City approved planting and irrigation plans and specifications;
  - Soil Amendment/Organic Compost
  - 3" deep Bark Mulch: recycled
  - Organic Fertilizer
  - Quality of Plant Material
  - Spacing of Plant Material
  - Staking of Trees: 2 sets of rubber ties & horizontal bracing
  - Irrigation Head Review
  - Irrigation Coverage
  - Water Pattern
  - Required Revision or Substitutions (explain in comments)

\_\_\_\_\_ Date of Final Acceptance for Conformance to Prepared Plans.

2. The automatic controller has been set according to the approved irrigation schedule for the plant establishment period;
3. The irrigation system has been adjusted to maximize irrigation and minimize overspray and runoff; and
4. A copy of the irrigation schedule had been given to the property owner.

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

This documentation was prepared by: (check whichever applies)

- Landscape Architect (for projects having plans prepared by a Licensed Landscape Architect).
- Licensed Landscape Contractor or Single-Family Homeowner not on hillside (for projects where no Licensed Landscape Architect is involved).

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

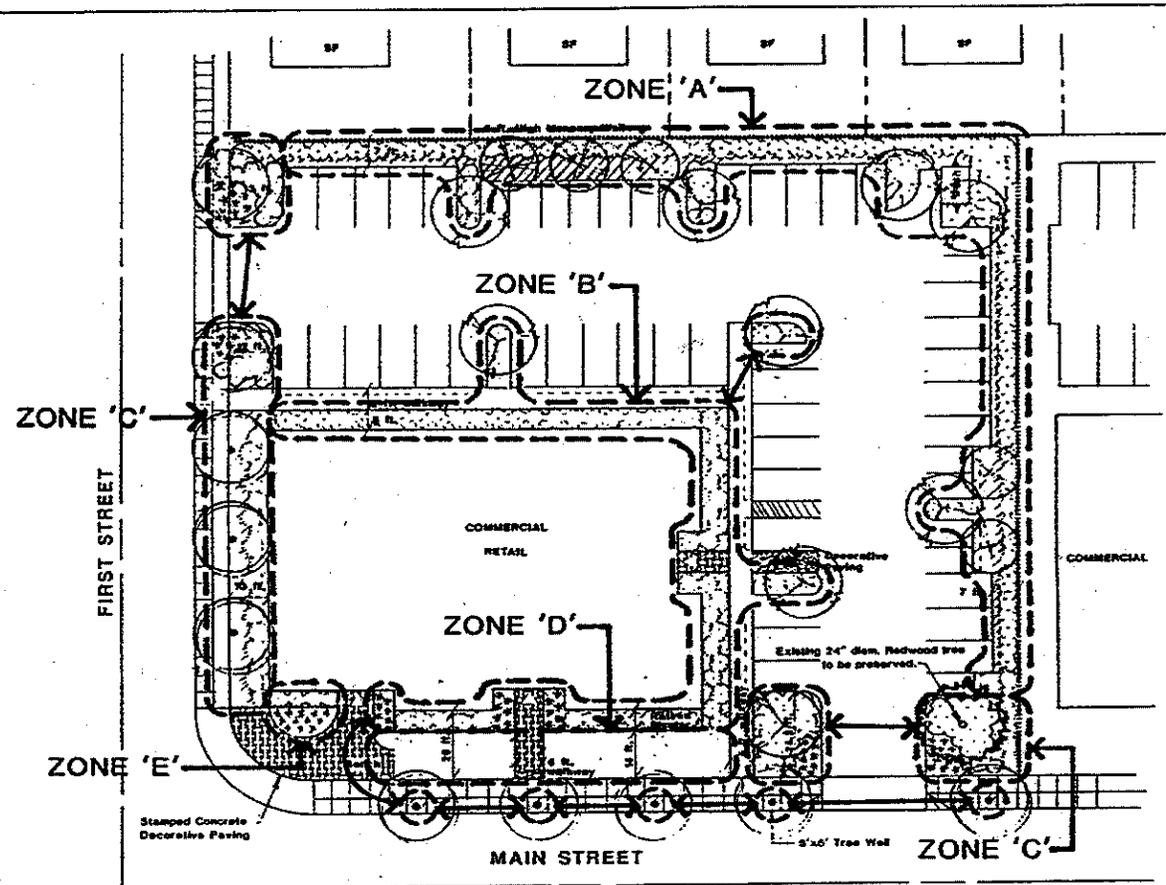
Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

\_\_\_\_\_ License No.

**PLANT PALETTE**

- STREET TREES (24" Box):**
  - *Platanus acchiolla* "Yarwood"/ Sycamore (Main Street)
  - *Pyrus calleryana* "Aristocrat"/ Aristocrat Pear (East Street)
- PARKING LOT TREES (15 gallon):**
  - *Fragaria* "Mocine"/Mocine Ash
  - *Lagerströmia* s. "Tuscarora"/ Grape Myrtle
- MEDIUM SHRUBS (5 gallon):**
  - *Abelia grandiflora*/Glossy Abelia
  - *Escallonia excelsa*/Trades/ Escallonia
  - *Photinia fraseri*/Foscar Photinia
  - *Viburnum suspensum*/ Sandbar/via Viburnum
  - *Xylocma congestum*/Shiny Xylocma
- LOW FOUNDATION SHRUBS (5 gallon):**
  - *Cistus hybridus*/White Rockrose
  - *Pittosporum tobira* "Wheeler's Dwarf"/Dwarf Tobira
  - *Rhephtolepis indica* "Clara"/ India Hawthorn
- FLOWERING ACCENT SHRUBS (1 gallon):**
  - *Agapanthus africanus* "Queen Anne"/Lily-of-the-Nile
  - *Hemerocallis hybridus*/Daylily
  - *Salvia leucantha*/Mexican Sage
- GROUND COVER:**
  - *Cazania Mitsuwa* Yellow/Gozania (Rais, 12" O.C.)
  - *Ceanothus glaucus* "Anchor Bay"/ Point Reyes Ceanothus
- TURF:** (Drought-tolerant Fescue blend)



EXAMPLE: Landscape Water Use Statement

Landscape Zones:	
"A"	- Extra-drought tolerant plants with drip emitters
"B"	- Water-conserving plants with bubblers
"C"	- Water-conserving plants with stream sprinklers
"D"	- Fescue turf with spray sprinklers
"E"	- Non-drought tolerant plants with spray sprinklers

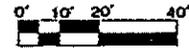
**OWNER:**  
 Fashion Elite  
 29937 Farmington Lane  
 Newberg, MO 67582  
 Phone Number: 722/516-9999

**APPLICANT:**  
 Same as Owner

**LANDSCAPE ARCHITECT:**  
 Creative Landscape Designs, Inc.  
 195 Garden Lane  
 Hayward, CA 94541  
 Phone Number: 415/785-5678

**CONTACT PERSON:**  
 Fred Church  
 Project Manager

Minimum Scale 1" = 20'



Date:	
Rev:	

**CONCEPTUAL PLANTING PLAN**

Commercial Building  
 for Fashion Elite

21215 Main St.  
 Hayward, CA



CITY OF  
**HAYWARD**  
 HEART OF THE BAY

**HAYWARD ENVIRONMENTALLY FRIENDLY  
 LANDSCAPE GUIDELINES AND CHECKLIST  
 FOR SINGLE-FAMILY DEVELOPMENT**

September, 2008

✓ ***Applicability of these Guidelines and Checklist***

These guidelines and checklist are intended for use by a non landscape professional and are to be used for developments comprising one to three single-family units, including duplexes, and for residential remodels and additions that entail an increase of at least 25 percent of existing building footprint area. Although not required, the use of these guidelines and checklist for smaller remodels and additions is encouraged to promote water conservation and sustainable landscaping.

For other more substantial projects, the City's Environmentally Friendly Landscape Guidelines and Checklist for Landscape Professionals are to be used.

✓ ***Purpose of Guidelines and Checklist***

The guidelines and checklist are provided to assist the homeowner to plan and develop an attractive, San Francisco Bay friendly, energy-conserving, water efficient, and wildlife-friendly garden. They incorporate the principles of Bay-Friendly Landscaping by StopWaste.Org\*, and the water efficient landscape goals of the California Department of Water Resources.

These guidelines and checklist are derived from the City's adopted policies, standards and guidelines, which include the Water Efficient Landscape Ordinance, Tree Preservation Ordinance, and the Hillside Design and Urban/Wildland Interface Guidelines, and StopWate.org's Bay-Friendly Gardening guidelines\*.

**Reference websites:**

- ❖ [www.hayward-ca.gov/municipal/](http://www.hayward-ca.gov/municipal/) for City of Hayward Municipal Codes
- ❖ [www.StopWaste.org](http://www.StopWaste.org) \*
- ❖ [www.ourwaterourworld.org](http://www.ourwaterourworld.org) for guides to pest control and more
- ❖ [www.cal-ipc.org](http://www.cal-ipc.org) for California invasive plant material list and recommendations
- ❖ [www.arborday.org/](http://www.arborday.org/) for information regarding benefits of trees
- ❖ [www.livingsystemslandmangement.com](http://www.livingsystemslandmangement.com) for grazing for controlling weeds and firebreaks

**Reference Books:**

- ❖ EBMUD's latest publication: Plants and Landscapes for Summer-Dry Climate of the San Francisco Bay Region
- ❖ Sunset Western Garden Book

✓ ***What is required at completion of landscaping?***

Submittal of a completed *Verification of Landscaping Installation* form (copy attached) is required upon completion of required landscape installation prior to issuance of a Certificate of Occupancy.

\* Bay-Friendly Landscape Guidelines are established by StopWaste.Org, a program funded by the Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board.

## **Landscape Guidelines:**

### **Planting:**

- ✓ Any tree removed for new development or remodels and additions must be replaced in accordance with Tree Preservation Ordinance (HMC Chapter 10, Article 15). The minimum replacement tree size is 24"-box.
- ✓ Arborists report required for removing 3 or more trees that measure larger than 8 inches in diameter at 54 inches above the ground. The report must include appraised value of all trees on the property and any tree protection recommendations to be implemented during construction. A tree preservation bond equal to the value of trees to be saved that may be impacted by construction shall be posted at issuance of grading or building permit.
- ✓ In addition to replacement trees, additional new trees shall be planted, in accordance with standards indicated in following pages.
- ✓ Recycle minimum 50% of green waste.
- ✓ Stockpile topsoil and reuse.
- ✓ Group plants by similar water use requirements.
- ✓ Soil preparation and staking for tree planting: Prepare planting holes, to be two times the size of the tree root ball. Backfill mix shall be 1 part organic compost and 2 parts native soil. Use City Standard Street Tree Staking Detail SD-122 for tree planting.
- ✓ Trees shall be planted a minimum of 5 feet from sewer, water, gas, cable, and electrical lateral services lines as well as from any paving and structures. Trees shall also be located a minimum of 7 feet from utility boxes, 15 feet from a light pole, and a minimum of 30 feet from the face of a traffic signal, or as otherwise specified by the City.
- ✓ Use diverse plant palettes of different sizes, shapes, texture and seasonal color (see attached plant list for guidance).
- ✓ Choose plants and allow enough spacing for plants to grow to their natural, mature shape and size.
- ✓ Do not use plants listed by Cal-IPC (California Invasive Plant Council) as invasive in the San Francisco Bay Area: [www.cal-ipc.org](http://www.cal-ipc.org).
- ✓ Where turf is proposed, use a drought tolerant Tall Fescue or variety with similar water requirements.
- ✓ Minimize use of pesticides and herbicides.
- ✓ Use recycled landscape construction material as much as possible such as mulch, header boards. etc.
- ✓ Recommended soil amendments: Do not use nitrified soil conditioner and commercial fertilizer. Use approximately three inches of organic compost and rototill thoroughly into minimum top nine inches of native soil.

**Irrigation:**

- ✓ Check static water pressure (psi) at the point of connection. (Information on water pressure at City main available from Utilities Division of City Public Works Department at 583-4727.)
- ✓ Each valve shall irrigate an area with similar area and slope; recycled water for irrigation is encouraged.
- ✓ Drip emitters and sprinklers shall be on separate valves.
- ✓ Sprinklers should be spaced at maximum 1.0 times radius of head for square area and maximum 1.2 times radius of head for triangular area.
- ✓ Rain shut-off device/ moisture sensor is recommended.
- ✓ All irrigation lines need to be underground, including drip systems, except for temporary installations.

## LANDSCAPE CHECKLIST FOR SINGLE-FAMILY DEVELOPMENT

Single-Family Home(s):     new (number of units: \_\_\_\_\_)  
    remodel/addition exceeding 25% of existing building footprint

Project Name: \_\_\_\_\_ Building Permit No.: \_\_\_\_\_

Project Address: \_\_\_\_\_ Planning Permit No.: \_\_\_\_\_

<b><i>Landscape Requirements:</i></b>
---------------------------------------

**Planting:**

- Limit the use of impervious paving types (e.g., asphalt or concrete), and use permeable paving types, such as natural stones and pavers in sand leveling bed. Any new homes located on more than 3:1 slope must use permeable paving for all proposed paved areas, except for allowed driveway, unless otherwise approved by Planning Division Manager.
- Show and label all existing trees to be removed or retained
- Show locations of proposed plants on a scaled landscape plan, and provide a plant legend that indicates plants' botanical and common names, quantity, size, spacing, and indicate on the plan watering needs such as high, moderate, low, or no summer watering.
- Plant one 15-gallon tree within the required front and side yard setbacks for every 50 feet of frontage or fraction thereof. Any missing, dead, or dying street trees shall be replaced with 24"-box trees.
- Limit the use of turf to 25 percent of the total landscaping area. Do not use turf on slopes exceeding 10 percent, or areas narrower than 8 feet.
- Use drought tolerant plants that require occasional, little or no summer watering (see attached plant list for guidance).
- Place a minimum three inches of recycled chipped wood mulch in a dark brown color or place greenwaste in all planting areas, except in turf areas, for weed control and water retention.

**Irrigation:**

- Layout irrigation system: water meter, gate valve, pressure regulator, main and lateral lines, valves, sprinklers, bubblers, drip emitters, and filters where applicable.
- Turf and non-turf areas to be irrigated on separate valves.
- Provide drip or two flood or pop-up type bubbler for each tree; irrigation for trees shall be on separate valve.
- Two aeration tubes per each tree are required: the tube shall be 30 inches long and 4 inches in diameter PVC perforated drainpipe with slotted cover, and drain rocks shall be filled in and around the pipe.

## Helpful Gardening Guides to a Healthy Garden:

*"Bay-Friendly is a holistic approach to gardening and landscaping that works in harmony with the natural conditions of the San Francisco Bay Watershed. Bay-Friendly practices foster soil health, conserve water and other valuable resources while reducing waste and preventing pollution. Visit [www.stopwaste.org](http://www.stopwaste.org)."*

**Healthy Soil** - Compost food waste and garden debris and amend soil with compost.

**Weed Control and Improve Soil** - Lay recycled cardboards (sheet mulching) before placing mulch.

**Garden Waste as Mulch** - Use leaves, chipped plants, branches and garden clippings as mulch.

**Reduce Waste** - Don't over plant. Minimize pruning. Allow enough room for each plant to grow.

**Grasscycling** - Mow lawn less often. Mow when lawn is dry, and leave the clippings on the lawn.

**Less Water** - Choose plants that are California native and/or drought tolerant, and buy plants from local nurseries.

**Less Water** - Minimize or eliminate lawn area.

**Water Smart** - Group plants with similar watering needs.

**Water Smart** - Pay only what you use. Install efficient irrigation system with a rain/moisture sensor device. Reduce rain and irrigation run-off.

**Water Smart** - Install a rainwater collection or gray (recycled) water system.

**Wildlife-Friendly** - Provide variety of plants with flowers and fruits for birds, butterflies, and other wildlife.

**Wildlife-Friendly** - Provide bird bath, water dish or a small pond.

**Wildlife-Friendly** - Leave some areas in the garden somewhat untidy: let flowers go to seed to provide food for birds, and leave dead leaves and stalks to shelter over-wintering insects.

**Protect Children and Protect the Bay** - Do not wash synthetic fertilizers or herbicides into the Bay.

**Protect the Bay** - Minimize impervious paving such as concrete patios and driveways. Allow water to soak back into soil and recharge ground water.

**Protect the Bay** - Terrace steep slopes. Prevent erosion and reduce run-off.

**Healthy Community** - Tolerate pests as much as possible. Grow your own vegetable organically.

**Save Energy** - Plant deciduous trees on the west side of the house to provide shade. Less energy bill.

**Save Energy** - Pave less and plant more.

**Save Energy** - Use solar powered or low voltage lighting.

**Reduce Pollution** - Turf less, mow less, compost, and plant more trees.

### Suggested Plant List

Botanical Name	Common Name	evergreen	deciduous	color interests	flowers	water needs
<b>TREES</b>						
Aesculus californica	California Buckeye		x	x	x	moderate
Arbutus 'Marina'	Arbutus	x			x	moderate
Celtis sinensis	Chinese Hackberry		x	x		moderate
Cercis occidentalis	Western Redbud		x	x	x	moderate
Eriobotrya deflexa	Bronze Loquat	x			x	moderate
Ginkgo biloba	Maidenhair Tree		x	x		moderate
Jacaranda	Jacaranda		x		x	infrequent
Koelreuteria paniculata	Goldenrain tree		x	x	x	moderate
Lagerstroemia indica	Crape Myrtle		x	x	x	moderate
Leptospermum	New Zealand Tea Tree	x			x	infrequent
Pistacia chinensis	Pistacia Tree		x	x		occasional
Platanus acerifolia	London Plane Tree		x	x		moderate
Quercus agrifolia	Coastal Live Oak	x				infrequent
Schinus molle	California Pepper	x				infrequent
Sequoia semperviron	Redwood	x				moderate
<b>SHRUBS</b>						
Abelia grandiflora	Abelia	x			x	moderate
Aloe spp.	no common name	x				infrequent
Arbutus	no common name	x			x	occasional
Arctostaphylos spp.	Manzanita	x			x	occasional
Artemisia spp.	no common name	x				occasional
Berberis spp.	Barberry	x	x			moderate
Carpenteria californica	Bush Anemone	x			x	moderate
Ceanothus spp.	Wild Lilac	x			x	infrequent
Cercis occidentalis	Western Redbud		x	x	x	infrequent
Chaenomeles	Flowering Quince		x		x	infrequent
Choisya ternata	Mexican Orange	x			x	moderate
Cistus spp.	Rockrose	x			x	infrequent
Coleonema spp.	Breath of Heaven	x			x	moderate
Correa spp.	Australian Fuschsia	x			x	moderate
Cotinus coggygria	Smoke Tree		x	x	x	infrequent
Cotoneaster spp.	no common name	x			x	infrequent
Dodonaea viscosa	Hop Bush	x		x	x	infrequent
Echium fastuosum	Pride of Madeira	x			x	infrequent
Escallonia spp.	no common name	x			x	moderate
Euonymus japonicus	Evergreen Euonymus	x		x		moderate
Feijoa	Pineapple Guava	x			x	infrequent
Hibiscus huegelii	Blue Hibiscus	x			x	moderate

Lantana	Lantana	x			x	infrequent
Lavandula	Lavender	x			x	infrequent
Lavatera	Tree Mallow	x			x	moderate
Lupinus	Lupine	x			x	infrequent
Nandina	Heavenly Bamboo	x		x		infrequent
Nerium oleander	Oleander	x			x	infrequent
Osmanthus	Osmanthus	x			x	moderate
Philadelphus	Mock Orange	x	x		x	moderate
Photinia fraseri	Photinia	x		x		moderate
Rhaphiolepis	Rhaphiolepis	x			x	infrequent
Ribes	Currant	x	x		x	moderate
Rosa	Rose		x		x	moderate
Salvia spp.	Sage	x			x	occasional
Santolina spp.	Santolina	x			x	occasional
Westringia fruticosa	Coast Rosemary	x			x	occasional
Xylosma congestum	Xylosma	x				occasional
<b>PERENNIALS</b>						
Acanthus Mollis	Bear's Breech				x	occasional
Achillea spp.	Yarrow				x	occasional
Agapanthus spp.	Lily-of-the-Nile				x	occasional
Agave	Agave					occasional
Allium	Allium				x	occasional
Anemone spp.	Windflower				x	moderate
Armeria maritima	Common Thrift				x	moderate
Cosmos	Cosmos				x	moderate
Dietes	Fortnight Lily				x	occasional
Dymondia	Silver Carpet					moderate
Echinacea	Coneflower				x	moderate
Erigeron	Fleabane				x	occasional
Gazania	Gazania				x	moderate
Iris	Iris				x	occasional
Oenothera	Evening Primrose				x	occasional
Phormium	New Zealand Flax					occasional
Stachys byzantina	Lamb's Ears				x	moderate
Thymus	Thyme				x	moderate
Tulbaghia	Society Garlic				x	moderate
Yucca	Yucca				x	infrequent
<b>GRASSES AND GRASSLIKE PLANTS</b>						
Carex	Sedge					moderate
Festuca	Fescue					moderate
Helictotrichon	Oat Grass					moderate
Miscanthus	Miscanthus					moderate
Stipa	Feather Grass					moderate



CITY OF  
**HAYWARD**  
HEART OF THE BAY

**Single-Family Home(s) (including duplexes)**

Check appropriate box:

- new (number of units: \_\_\_\_\_)
- remodel / addition

Project Name: \_\_\_\_\_ Project Address: \_\_\_\_\_

City Building Permit Number: \_\_\_\_\_

I/We hereby certify the following:

The landscape work for the above-referenced project has been completed in compliance with the City approved planting and irrigation plans and specifications.

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Signature of homeowner, contractor or owner's representative  
(circle whichever applies)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Phone or e-mail address

\_\_\_\_\_  
Signature of homeowner, contractor or owner's representative  
(circle whichever applies)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Phone or e-mail address

Department of Development Services  
Planning Division

777 B Street, Hayward, CA 94541-5007  
Tel: 510/583-4200 Fax: 510/583-3649

HAYWARD CITY COUNCIL

RESOLUTION NO. \_\_\_\_\_

Introduced by Council Member \_\_\_\_\_

RESOLUTION ADOPTING THE HAYWARD  
ENVIRONMENTALLY-FRIENDLY GUIDELINES AND  
CHECKLISTS FOR PRIVATE DEVELOPMENT

WHEREAS, the City of Hayward's General Plan sets forth goals for preserving and improving the City's natural and built environment, protecting the health of its residents and visitors, and fostering its economy; and

WHEREAS, sustainable landscape design, construction, operation and maintenance can have a significant positive effect on energy, water, and resource efficiency, waste and pollution reduction, wildlife habitat and human health; and

WHEREAS, environmentally-friendly landscape design, construction, operation and maintenance contributes to a reduction in greenhouse gas emissions, improves air quality, and enhances urban sustainability; and

WHEREAS, the City Council has adopted a green building ordinance for municipal projects and is in the process of considering a green building ordinance for private projects to improve energy and water and resource conservation, to reduce greenhouse gas production and to make healthier structures for people to live and work in; and the City Council recognizes that landscaping is an important part of our built environment that can create resource and pollution impacts; and

WHEREAS, in recent years, sustainable landscaping design, construction and operational techniques have become increasingly widespread in the Bay Area and California, with many homeowners, commercial property owners and landscape professionals seeking to incorporate sustainable landscaping techniques into their projects; and

WHEREAS, City staff has developed guidelines and checklists for environmentally-friendly landscaping, which contain practices selected both for their viability in today's market and their ability to promote sustainable landscapes and communities; and

WHEREAS, it is critical to both the economic and environmental health of the City to provide leadership to the private and public sectors in the area of sustainable landscaping; and

WHEREAS, the adoption of this Resolution is exempt from the California

Environmental Quality Act ("CEQA"), pursuant to section 15308, regulatory action to protect the environment.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Hayward that, commencing January 15, 2009, and to the extent that the City's Environmentally-Friendly Landscape Guidelines and Checklists do not conflict with current requirements of any City ordinance, all new development for which a building permit application or a planning application has not been submitted shall observe the following requirements for environmentally-friendly landscaping:

1. All new single family residential projects consisting of four or more dwelling units shall comply with the Hayward Environmentally-Friendly Landscape Guidelines for Landscape Professionals, attached hereto as Exhibit A.
2. All new single family residential projects, including duplexes, consisting of less than four dwelling units and single family residential remodels and additions that expand the existing building footprint by more than 25% shall comply with the Hayward Environmentally-Friendly Landscape Guidelines and Checklist for Single Family Developments, attached hereto as Exhibit B.
3. All single family remodel and additions that expand the existing building footprint by 25% or less are encouraged to incorporate the requirements of the Hayward Environmentally-Friendly Landscape Guidelines and Checklist for Single Family Developments.
4. All multi-family residential projects consisting of three or more dwelling units per building and all multi-family remodels and additions that exceed 5,000 square feet of landscape renovation shall comply with the Hayward Environmentally-Friendly Landscape Guidelines for Landscape Professionals.
5. All multi-family residential remodels and additions that require 5,000 square feet or less of landscape renovation are encouraged to incorporate the requirements of the Hayward Environmentally-Friendly Landscape Guidelines for Landscape Professionals.
6. All commercial projects and commercial tenant improvements, remodels and additions that exceed 5,000 square feet of landscape renovation shall comply with the Hayward Environmentally-Friendly Landscape Guidelines for Landscape Professionals.
7. All commercial tenant improvements, remodels and additions that require 5,000 square feet or less of landscape renovation are encouraged to comply with the Hayward Environmentally-Friendly Landscape Guidelines for Landscape Professionals.

IN COUNCIL, HAYWARD, CALIFORNIA, \_\_\_\_\_, 2008

ADOPTED BY THE FOLLOWING VOTE:

AYES: CITY COUNCIL:  
MAYOR:

NOES: CITY COUNCIL:

ABSTAIN: CITY COUNCIL:

ABSENT: CITY COUNCIL:

ATTEST: \_\_\_\_\_  
City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward



CITY OF  
**HAYWARD**  
HEART OF THE BAY

**DATE:** October 1, 2008  
**TO:** Mayor and City Council Sustainability Committee  
**FROM:** Director of Community and Economic Development Department  
**SUBJECT:** Climate Action Plan Update

**RECOMMENDATION**

That the Committee reads and comments on this report, and provide verbal and written feedback on preliminary strategies and actions for Hayward's Climate Action Plan.

**SUMMARY**

This report provides an update to the Committee regarding recently completed work related to the preparation of the Climate Action Plan (CAP) and the upcoming public outreach efforts that will be conducted prior to the release of the draft CAP. Staff seeks input from the Committee on the proposed draft strategies and actions to reduce greenhouse gas (GHG) emissions.

**BACKGROUND**

On February 26, 2008, the Council authorized staff to enter into a contract with the Bay Area Air Quality Management District for the receipt of a \$40,000 grant to spend on the preparation of a Climate Action Plan. The Council also authorized staff to issue a request for proposals and execute a contract with a consultant for the preparation of a Climate Action Plan (CAP). The firms of HDR and Town Green have been working with staff since early June on the Plan.

A community meeting was held on Saturday, July 26, 2008 to introduce the project and begin collecting input for the draft CAP. In addition to City staff, consultants, and some City Council members and Planning Commissioners, approximately 30 people attended the meeting. The meeting included presentations by Susan Daluddung, Doug Grandt, consultant John Deakin, and Ann Hancock, Executive Director of the Climate Protection Campaign in Sonoma County. Following the presentations, the audience broke into small groups with each focusing their conversation on a particular topic such as transportation, alternative energy, or solid waste. Valuable feedback was collected from these groups on reporting forms. Ideas from the focus groups were also reported by representatives from each group in the Council Chambers at the end of the meeting. These ideas are compiled in the Summary of Recommended Top Strategies for Reducing Emissions (Exhibit A).

## **DISCUSSION**

Since the last update was provided to the Sustainability Committee on July 2, 2008, staff has made substantial progress on the preparation of the CAP. Ideas and suggestions for ways to reduce greenhouse gas emissions have been collected from the community via an on-line survey, paper surveys, the community meeting held on July 26, input from the City staff working group, and from interviews with the advisory group.

Based on the input to date, HDR and staff have created a list of strategies and possible actions Hayward can take to reduce GHG emissions. Staff is requesting feedback on these actions from the Sustainability Committee. In an effort to streamline the feedback process, staff has included the list of actions along with space provided for comments (Exhibit B). Staff welcomes written comments on these actions. Based on comments and feedback received, staff will begin to narrow down the list of actions and move forward to identify short-term and long-term actions to be included in the draft CAP.

The draft CAP will include a recommended long term GHG reduction target. In 2005, Governor Schwarzenegger issued Executive Order # S-3-05, which established a greenhouse gas reduction target of 80 percent below 1990 levels by 2050. Assembly Bill 32, the California Global Warming Solutions Act of 2006, requires the State's greenhouse gas emissions to be reduced to 1990 levels by 2020. Staff intends to recommend that the Council adopt targets of a 15 percent reduction below 2005 levels by 2020 and an 80 percent reduction below 2005 levels by 2050. These targets would be consistent with the State's goals. The attached memo, dated August 28, 2008 (Exhibit C), was provided to the Council and explains the approach staff used to develop the target. Based on the inventory of Hayward's emissions for the base year 2005, emissions from municipal operations only account for approximately one percent of the overall community's emissions. Therefore, it is critical that the community be actively engaged in the preparation of the CAP. Exhibit D includes the GHG targets that have been adopted by Alameda County jurisdictions and summarizes the climate action efforts of each.

### **Public Outreach –**

Staff recognizes that a wider spectrum of community representatives, citizens, and business owners need to be consulted during the preparation of the CAP. Staff is in the process of scheduling meetings with various community organizations such as the Rotary Club, the Chamber of Commerce, public health advocates, churches, neighborhood groups, and educational providers. For each meeting, staff plans to provide the list of possible strategies and associated actions for reducing Hayward's greenhouse gas emissions and will ask for comments on the actions strategies.

## **NEXT STEPS**

Incorporating input from the Sustainability Committee, staff will direct HDR to begin estimating the potential GHG reductions and the costs associated with each action. HDR will also evaluate the ease of implementation, and the time necessary to implement each action. After collecting comments on the strategies and related actions at the community meetings held this fall, staff will direct HDR to incorporate the comments into the draft CAP.

Staff plans to collect and compile comments from the community, and provide the comments to HDR by early December. The draft CAP is expected to be released in February 2009 when work sessions with the City Council and Planning Commission, and a second large community meeting will be scheduled.

Prepared by:

  
\_\_\_\_\_  
Erik J. Pearson, AICP  
Senior Planner

Recommended by:

  
\_\_\_\_\_  
David Rizk, AICP  
Director of Development Services Department

Approved by:

  
\_\_\_\_\_  
Gregory T. Jones  
City Manager

Attachments:

- Exhibit A: Summary of Recommended Top Strategies for Reducing Emissions (from July 26 Community Meeting)
- Exhibit B: Possible Actions to Reduce GHG Emissions
- Exhibit C: GHG Reduction Target Memo to City Council, dated August 28, 2008
- Exhibit D: Climate Protection Actions of Alameda County Jurisdictions

**City of Hayward**  
**Climate Action Plan Community Workshop**  
**July 26, 2008**

**Summary of Recommended Top Strategies for Reducing Emissions**

- 1. Transportation (Mary Lavelle)**
  - a. Get people to use mass transit more frequently (Ecopass, etc.)
  - b. Engage businesses in Hayward (encourage employees to use mass transit, fewer parking lots, etc.)
  - c. Address City parking policies for downtown to encourage less auto use
  - d. Creative zoning to discourage auto use (form-based codes, etc.)
  - e. Promoting students to walk to school
  
- 2. Building Construction and Energy Use (Cam Bauer)**
  - a. Hayward to be aggressive/bold in requiring green building measures (solar, solar water heaters, etc.)
  - b. High density near transit
  - c. City staff needs to be more knowledgeable about green building (eliminate permit fees for green building)
  - d. Carbon tax
  
- 3. Waste Reduction, Recycling and Composting (Debra Kaufman)**
  - a. Solid waste/recycling plays a more significant role than indicated in the inventory (recycling, waste diversion)
  - b. Educating about existing programs – maximize participation
  - c. Enhancing or establishing requirements to participate in recycling programs (cardboard, cans/bottles)
  - d. Green cleaning, etc.
  - e. Extending producer responsibility (packaging)
  - f. Reduction through recycling should be included in Climate Action Plan
  
- 4. Renewable Energy (Al Mendall)**
  - a. Requiring solar on all new buildings in Hayward
  - b. Municipal operations getting 100% energy from renewable sources by 2012
  - c. Solar on existing industrial buildings in SW Hayward
  - d. Berkeley-style solar financing
  - e. Education is important; State support is important; consider community-choice aggregation for renewable energy
  - f. Conduct wind energy feasibility studies to promote wind energy use

**5. Environmental/Public Health and General (Rob Simpson)**

- a. Don't need to reinvent carbon mitigation, but see how existing strategies from others to relate to Hayward
- b. Park and ride lot in Hayward
- c. Another BART station at K-Mart at Harder Road
- d. Berkeley-style solar financing (AB811)
- e. CCA energy system – help with financing (possibly expand Water Dept., etc.)
- f. Education and outreach – Clean and Green Task Force; working with private sector (Home Depot and reduced tree prices)
- g. Public health information sources and outreach (Zucchini festival)
- h. Reforestation (Caltrans' 238 corridor)

**6. Community and Business Engagement (Elisa Marquez)**

- a. Outreach – Green Portal – let others know and encourage them to get involved (HUSD, HARD, religions institutions, Chamber, etc.)
- b. Green Expo (vendors, PG&E) to educate and why/how to
- c. Encourage businesses to go green
- d. Financing – grants (Stopwaste.org, State Conservation Board – solar and wind)

**7. Institution/Education and General (Andy Wilson)**

- a. Cover all issues and prioritize with costs in mind – part of education
- b. Education is critical to get support of entire City
- c. How to educate? Internet, City website, newsletter
- d. CCA – community choice aggregate system for energy
- e. Quarry Village - develop land use designation for this type of development

# **CLIMATE ACTION PLAN – STRATEGIES & PROPOSED ACTIONS FEEDBACK WORKSHEET**

Name \_\_\_\_\_ (Please include your name in case we have questions or need further clarification. Thank you.)

The following work sheet contains proposed Action Items which the climate action team and consultants are currently discussing. The purpose of this work sheet is to allow you to comment on each individual action. We have also included a 1-5 rating scale as well. If you do not have specific comments and would simply prefer to rate the action, feel free to circle the number which best corresponds with your opinion of the action item. 1 is the lowest score and 5 being the highest.

Your feedback is sincerely appreciated as we move forward with this very important project.

**Strategy 1 – Transportation – 10 Actions**

**Strategy 2 – Land-Use & Zoning – 6 Actions**

**Strategy 3 - Improve Energy Efficiency of Existing Buildings – 5 Actions**

**Strategy 4 – Improve Energy Performance of New Buildings – 2 Actions**

**Strategy 5 – Increase Use of Renewable Energy – 4 Actions**

**Strategy 6 – Increase City-Wide Recycling and Composting – 6 Actions**

**Strategy 7 – Community Outreach – 4 Actions**

## Strategy 1 - Transportation

### Proposed Actions

**Action 1** – Develop a streamlined program which encourages businesses to implement commuter benefits programs. The commuter benefits program might include an offer of commuter checks, use of the existing emergency ride home program, etc.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 2** – Continue to implement the City-wide bicycle master plan. Continue to expand biking programs through aggressive pursuit of grant funding to expand bike lanes and facilities. The expanded bike program may also include a program that encourages companies to institute a community-wide bike share program, provides bike maps of the city, etc.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 3** – Explore providing car sharing program such as Zip Car or City Car Share, and encourage large employees such as the colleges and HUSD to implement such programs.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 4** – Create program which establishes initiatives to encourage participation in ride-sharing programs.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 5** – Make climate impact (greenhouse gas emissions) a criteria for evaluating all new transportation infrastructure. Provide incentives through the development review process.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 6** – Continue to improve fuel economy of city fleet including police cars, fire trucks, and maintenance trucks and continue to pursue alternative fuel vehicles.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 7** – Consider making City-owned bikes available to City employees for day-use. Offer secure bike storage in all City-occupied buildings and, if there is interest, offer courses on bike safety and bike maintenance to City staff.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 8** – Collaborate with BART and AC Transit to explore opportunities to expand services (for example, to extend rapid bus service from Bay Fair to the South Hayward Bart Station and pursue hydrogen fueling station).

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 9** – Provide incentives for residents to purchase low-carbon vehicles.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 10** – Continue to collaborate with state and federal authorities to promote alternative fuels and vehicle fuel efficiency standards.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Strategy 2 – Land-Use & Zoning**

**Proposed Actions**

**Action 1** – Continue aggressive promotion of land-use planning as laid out in the General Plan. For example, support higher-intensity and well-designed quality development in areas within ½ mile of transit stations and ¼ mile of major bus routes in order to encourage non-automotive modes of travel. Also, seek to integrate greater intensity of development and enhance the surrounding neighborhood within ½ mile of the South Hayward BART Station.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 2** – Continue to encourage development which encompasses walkability as a key component.

1      2      3      4      5

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action 3** – Explore the development of a Smart Code / form based codes.

1      2      3      4      5

Comments: \_\_\_\_\_  
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**Action 4** – Consider implementing an incentive program that encourages more mixed-use housing and commercial development along transit corridors.

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Comments: \_\_\_\_\_  
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**Action 5** – Explore the potential of implementing a community land trust to buy foreclosed properties and sell them to individuals who are employed in Hayward but reside in other areas and must commute in to work. A program may potentially be coordinated with local businesses.

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Comments: \_\_\_\_\_  
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**Action 6** – Invest in reforestation projects, wetland redevelopment projects, and other projects that will result in carbon sequestration.

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Comments: \_\_\_\_\_  
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**Strategy 3 – Improve Energy Efficiency of Existing Buildings**

**Proposed Actions**

**Action 1** – Develop a residential energy efficiency retrofit financing program. This financing program should be linked with the residential PV financing program.

1    2    3    4    5

Comments: \_\_\_\_\_  
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**Action 2** – Develop a commercial energy efficiency retrofit financing program. This financing program should be linked with the commercial PV financing program.

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Comments: \_\_\_\_\_  
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**Action 3** – Create a program that encourages energy conservation in residential and commercial buildings. This program could be similar to the Green Building Ordinance for new construction in that it collects a number of energy conservation requirements (or recommendations) under one umbrella program.

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Comments: \_\_\_\_\_  
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**Action 4** – Develop and implement an energy conservation plan for City buildings and City operations.

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Comments: \_\_\_\_\_  
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**Action 5** – Audit all city buildings & identify opportunities for efficiency improvements from both operations and equipment upgrades.

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Comments: \_\_\_\_\_  
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**Strategy 4 – Improve Energy Performance of New Buildings**

**Proposed Actions**

**Action 1** – Complete development of Private Green Building Ordinance

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Comments: \_\_\_\_\_  
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**Action 2** - Continue to update the recently developed Municipal Green Building Ordinance.

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Comments: \_\_\_\_\_  
\_\_\_\_\_

**Strategy 5 – Increase Use of Renewable Energy**

**Proposed Actions**

**Action 1** – Develop a program for financing and installation of photovoltaic systems on residential buildings. The residential PV financing program should be coupled with the residential efficiency financing.

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Comments: \_\_\_\_\_  
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**Action 2** – Develop a program for the financing and installation of PV systems on commercial buildings. The commercial PV financing program should be coupled with the commercial efficiency financing.

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Comments: \_\_\_\_\_  
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**Action 3** – Explore options for participating in a Community Choice Aggregation program.

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Comments: \_\_\_\_\_  
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**Action 4** – Conduct audits of City buildings and identify buildings that are best-suited for efficiency and solar retrofits. Invest in efficiency retrofits and solar upgrades in qualifying city buildings.

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Comments: \_\_\_\_\_  
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**Strategy 6 – Increase City-Wide Recycling and Composting**

**Proposed Actions**

**Action 1** – Promote commercial recycling servicing by hiring a consultant to contact businesses to offer assistance in implementing waste reduction and recycling programs or expanding current programs.

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Comments: \_\_\_\_\_  
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**Action 2** – Implement food scraps collection for single-family homes.

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Comments: \_\_\_\_\_  
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**Action 3** – Recommend improvements to the City’s construction and demolition debris recycling ordinance by evaluating other jurisdictions’ provisions, as well as the processing capabilities of the various transfer stations and facilities in Alameda County and adjacent counties.

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Comments: \_\_\_\_\_  
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**Action 4** – Evaluate the viability of implementing a ban on certain materials from landfill, e.g., yard trimmings, untreated wood, or cardboard.

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Comments: \_\_\_\_\_  
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**Action 5** – Evaluate the viability of requiring that residents and/or businesses participate in the recycling programs offered through the City’s franchisee.

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Comments: \_\_\_\_\_  
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**Action 6** – Develop program that encourages overall reduction of waste in residential and commercial sectors.

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Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Strategy 7 – Community Outreach**

**Proposed Actions**

**Action 1** – Create a stand-alone Green Portal, or website, that would serve as the city’s hub for all things green. It would contain a dedicated area for green building, all programs related to the climate action plan, and information about local green jobs and training.

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Comments: \_\_\_\_\_  
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**Action 2** – Develop and implement a plan that aims to engage residents in the city-wide effort to reduce emissions. The plan will be designed to reach residents of all ages, races, and classes how to reduce GHG emissions and will introduce residents to City climate action programs. This plan will incorporate a long-term plan to involve K-12 schools and universities and will utilize the most effective means of engaging the broader community. The plan will likely include an education component that aims to educate children and adults.

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Comments: \_\_\_\_\_  
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**Action 3** – Develop and implement a plan to engage local businesses in climate-related programs. This program should provide a benefit for both local government and businesses: the City, among other things, should aim to provide businesses with information on local, State, and Federal programs, and businesses should be given the opportunity to provide input on ways local government could help streamline their efforts to reduce emissions. In developing this plan, the City will explore options for engaging the Chamber of Commerce, Hayward’s Clean and Green Taskforce, the Alameda County Green Business Program, and other business councils.

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Comments: \_\_\_\_\_  
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**Action 4** – Offer a GHG reductions education program in which employees will learn about programs the City already offers or will offer in the future to residents and businesses.

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Comments: \_\_\_\_\_  
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\_\_\_\_\_



**CITY OF HAYWARD**  
**DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT**

***Interoffice Memorandum***

**DATE:** August 28, 2008

**TO:** Mayor and City Council

**THRU:** Gregory T. Jones, City Manager *G.T.J.*  
 Susan J. Daluddung, Director of Community and Economic Development *S.J.D. for*

**FROM:** Erik J. Pearson, Senior Planner

**SUBJECT:** Climate Action Plan & Greenhouse Gas Reduction Target

As you know, we intend to present to the City Council a draft Climate Action Plan in the early part of 2009. The CAP will include a goal or a target of a specific reduction in greenhouse gas emissions that the City will aim to achieve by a certain date in the future. The purpose of this memo is to keep the Council informed about the CAP and the approach we intend to use to adopt a greenhouse gas emission reduction target.

To provide the Council members with information and analysis to assist them in setting a feasible reduction level and target date, staff is recommending that a "concurrent" approach be taken where such target levels are established by Council as it adopts the Climate Action Plan, rather than setting such targets beforehand. Following is a discussion about such approach, including a brief summary of past actions regarding reduction levels and target dates.

On April 8, 2005, the City of Hayward became a participant in the U.S. Mayors Climate Protection Agreement and committed to reducing greenhouse gas emissions by seven percent below 1990 levels by 2012. This is roughly equivalent to a reduction of 16 percent below 2005 levels by 2012. Figure 1 in Attachment 1 shows how Hayward's emissions would decrease if this aggressive target were met. It also shows how further reductions could continue through the year 2050.

Given that the reduction was agreed to over three years ago, it may be more realistic to adopt the Western Climate Initiative's (WCI) goal, which is to reduce emissions to 15 percent below 2005 levels by the year 2020. This would give the City 12 years to meet the first target, rather than only 4 years. The State of California has determined that the WCI's goal is consistent with those of AB 32, which are to reduce emissions to 1990 levels by 2020 (25% below business as usual), and 80% below 1990 levels by 2050. Figure 2 shows the reductions Hayward would need to attain to stay on track for to achieve the WCI target.

When the City joined the Alameda County Climate Protection Project and ICLEI's Cities for Climate Protection Campaign in 2006, the Council adopted a Resolution, committing to implement a five-step program:

1. Conduct a local emissions inventory and forecast of greenhouse gas emissions.
2. Develop an emissions reduction target.
3. Prepare an action plan to achieve the target.
4. Implement the approved action plan.
5. Evaluate, monitor and review progress in meeting the stated targets.

Many cities have followed this five-step program precisely by developing a reduction target first and then preparing an action plan.

Staff recommends that the Council understand the scope of the opportunities and challenges associated with a particular GHG reduction target before adopting a long term target that may prove unrealistic. For this reason, rather than asking the Council to adopt a target as a separate action prior to the preparation of the CAP, we plan to present two or three possible GHG reduction targets when we present the draft CAP, along with the community actions necessary to achieve the targets.

If the Council wants to be more aggressive and desires to reduce emissions by a higher percentage, the City can add actions that need to be implemented. This may result in the City's consultants having to prepare a less in-depth analysis of additional potential actions rather than conducting a more in-depth analysis of fewer potential actions. The City's CAP staff and consultants feel that in order to provide more valuable information about the costs and benefits of specific potential actions, an emphasis should be placed on providing more comprehensive analysis on fewer measures. Another approach that would be available to the Council if it wishes to be more aggressive would be to set earlier reduction target dates, utilizing the measures to be presented with the Plan.

For these reasons, we recommend an approach where we propose a specific target, in conjunction with the draft Plan. With this target, we would propose a list of actions that would need to be implemented to achieve the given target.

Staff expects that the Council Sustainability Committee will provide a recommendation to the Council, based on discussion on the draft Plan and reduction targets presented at a meeting to be held toward the end of this calendar year. Based on such recommendation, the Council would then direct staff on the setting of a GHG reduction target at a work session in February and that the target would be adopted along with the CAP, which becomes the means to reaching the target, at a public hearing later in 2009.

Finally, as a reference, Attachment 2 contains the emissions reduction targets that have been adopted by other jurisdictions in the Bay Area, as well as an excerpt from Natural Capitalism Solutions' *Climate Protection Manual for Cities* that lists the reduction targets adopted by various organizations. These various methodologies will be used to form the basis of staff's recommendation to the Sustainability Committee and Council.

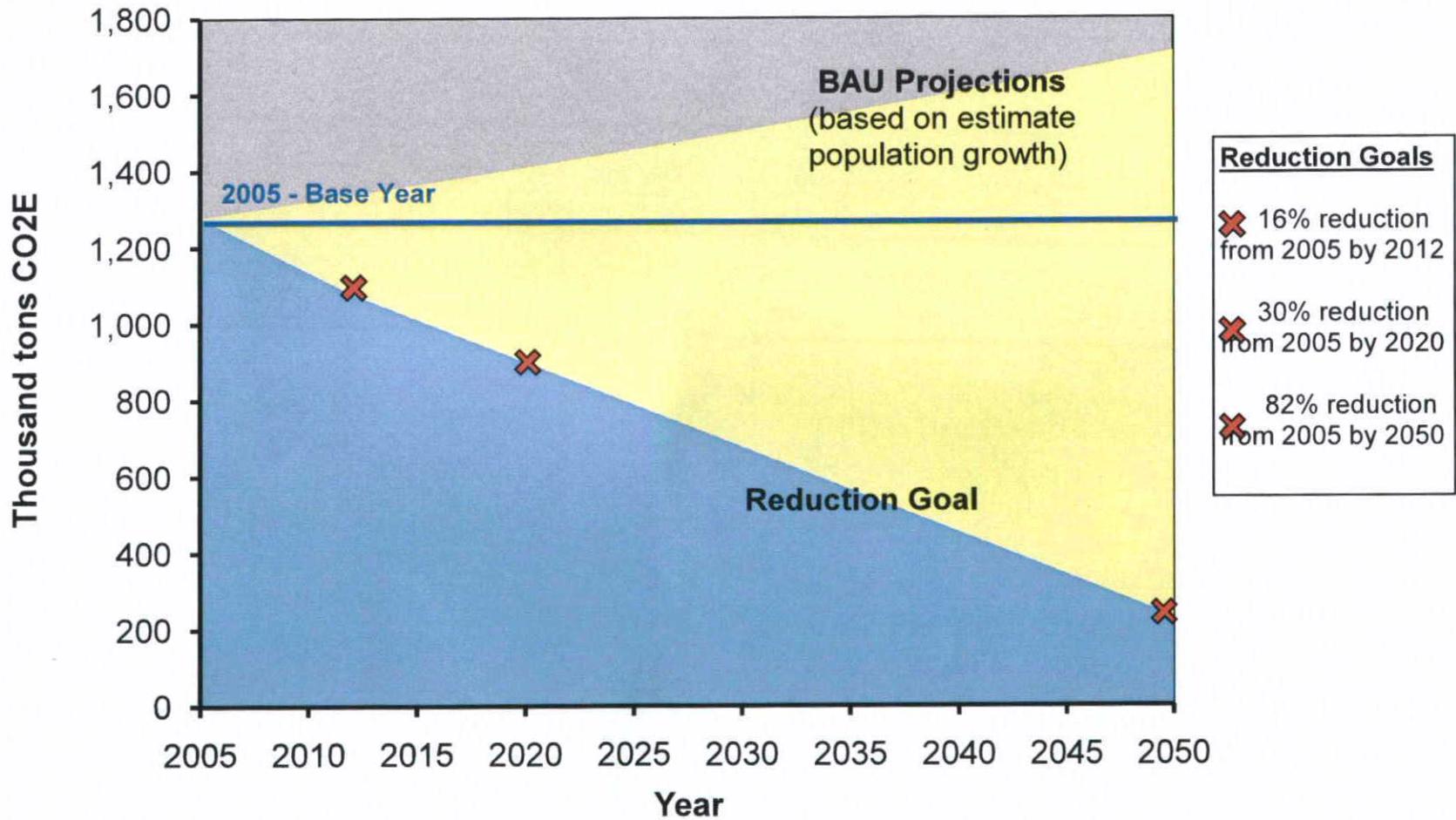
**Attachments:**

- 1. GHG Reduction Graphs**
- 2. Reduction Targets of Other Organizations**

**cc: David Rizk, Planning Manager**  
**Alex Ameri, Deputy Director of Public works**  
**Vera Dahle-Lacaze, Solid Waste Manager**  
**Tiffany Roberts, Planning Intern**

# Hayward GHG Emissions Reductions Goals Based on Kyoto and US Conference of Mayors Goals

Base Year Emissions = 1.28 million tons CO<sub>2</sub>



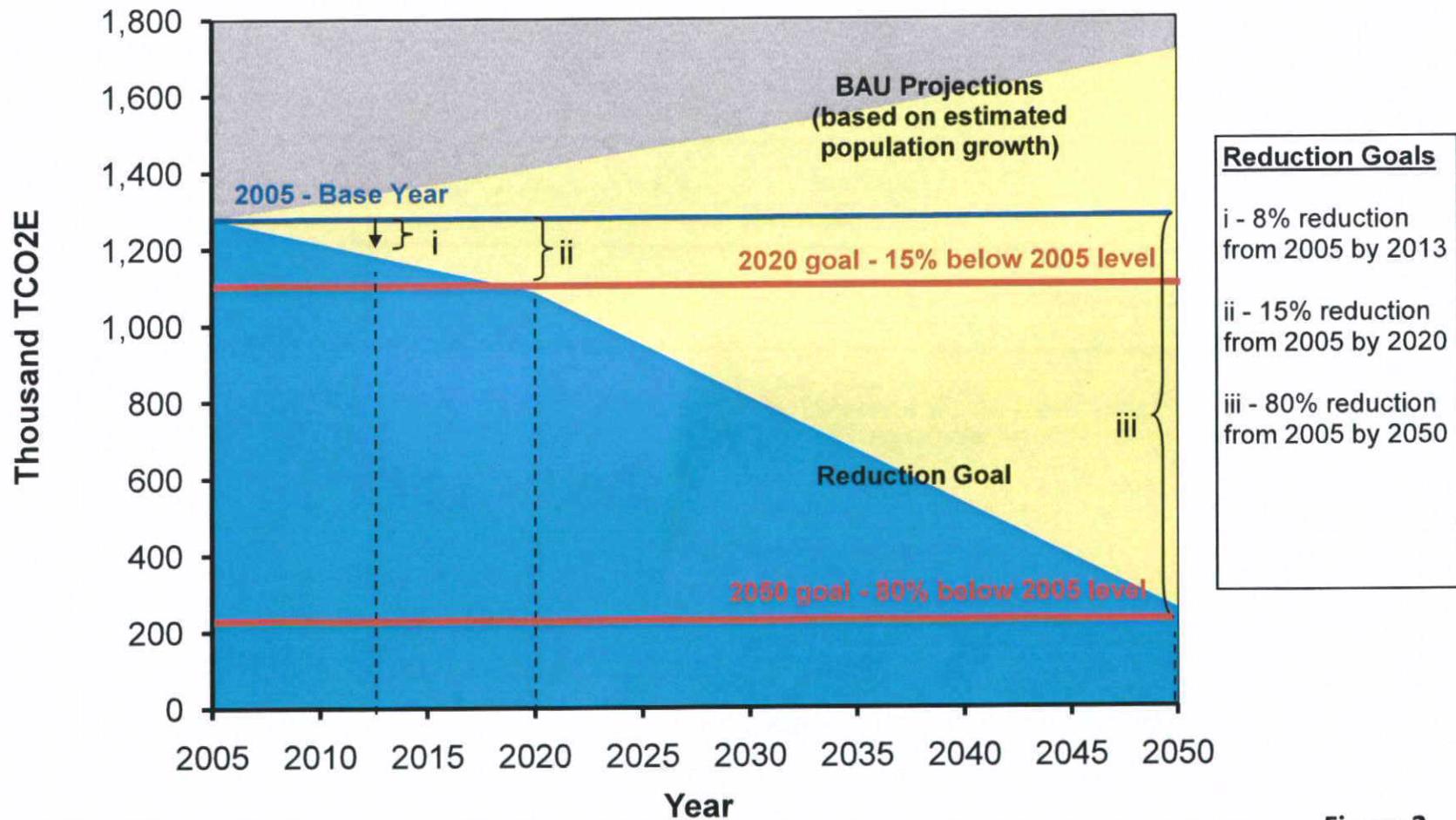
- Reduction Goals**
- ✗ 16% reduction from 2005 by 2012
  - ✗ 30% reduction from 2005 by 2020
  - ✗ 82% reduction from 2005 by 2050

BAU = Business As Usual

Figure 1

# Hayward GHG Emissions Reductions Based on WCI and AB 32 Goals

(Base Year Emissions = 1.2 million tons CO<sub>2</sub>e)



- Reduction Goals**

  - i - 8% reduction from 2005 by 2013
  - ii - 15% reduction from 2005 by 2020
  - iii - 80% reduction from 2005 by 2050

BAU = Business As Usual

Figure 2

## Reduction Targets of Bay Area Jurisdictions

Jurisdiction	Reduction Target
San Mateo	Reduce greenhouse gas emissions each year, beginning with 2009 emissions being less than the 2006 baseline and then exceed the 2020 state target and meet the 2050 state target
San Francisco	20% below 1990 levels by 2012 (goal adopted in 2002)
Palo Alto	Reduction targets as follows: <ul style="list-style-type: none"> <li>• A 5% reduction from 2005 City emissions levels by July 2009.</li> <li>• A 5% reduction in City and Community emissions by July 2012.</li> <li>• A community-wide target of a 15% decrease from 2005 levels by 2020.</li> </ul>
Santa Rosa	Set target of 20% of 2000 levels by 2010
Berkeley	<ul style="list-style-type: none"> <li>• Ultimate target is an 80% reduction below 2000 baseline level of 696,498 eCO<sub>2</sub> by 2050</li> <li>• Interim target is a 33% reduction by 2020</li> </ul>
Albany	Target set to reduce greenhouse gas emissions 25% below 2004 levels by 2020
Sonoma County	25% below 1990 levels by 2015 (Given recent growth in CO <sub>2</sub> emissions, it is not likely that they will achieve target.)

The following is an excerpt from Natural Capitalism Solutions' *Climate Protection Manual for Cities*. Chapter 4. [http://www.climatemanual.org/Cities/Chapter4/index.htm#\\_ftnref2](http://www.climatemanual.org/Cities/Chapter4/index.htm#_ftnref2)

### Examples of Emission Targets

Cities typically follow one of several approaches:

1. Adopting the goals set by the Kyoto Protocol: This is not an ambitious goal, but more than 300 cities have joined the U.S. Mayors Climate Protection Agreement in committing to meet or beat them. The Kyoto Protocol goals set for the U.S. are to reduce emissions of greenhouse gases 7% below 1990 levels by 2012.[2]
2. Various cities and other jurisdictions have set their own goals, which may be more or less ambitious.
  - o The New York State Energy Plan set a goal of 5% below 1990 levels by 2010 and 10% below 1990 levels by 2020.[3]

3. Some cities are adopting more ambitious goals and longer-range goals.
  - o The city of Portland and Multnomah County, Oregon, chose a level of 10% reductions below 1990 levels by 2010.[4]
  - o Cambridge, Massachusetts, chose 20% below 1990 levels by 2010.[5]
  - o Ottawa, Ontario, Canada picked 20% below 1990 levels, splitting the dates of attainment to 2007 for corporate business activities and 2012 for community emissions.[6]
4. Some governments and companies have adopted goals ranging from cutting emissions in half to eliminating them entirely to achieve carbon "neutrality." Examples from the public and private sectors include:
  - o Seattle City Light, a municipal utility, set a target of zero net emissions that was achieved in 2005 through a purchase of 300,000 tons of GHG offsets[7]
  - o Fort Carson Mountain Post, U.S. Army set a goal of 100% renewable energy by 2027.
  - o DuPont set corporate goals of 65% reduction over 1990 levels by 2010, and has already met that target for its global operations, with a savings to date of \$3 billion.
  - o Interface Inc.'s "Mission Zero" commitment to "eliminate any negative impact our company may have on the environment by 2020" includes a goal that all fuels and electricity will be from renewable sources.[8]
5. An increasing number of cities are joining Chicago Climate Exchange:
  - o Over 200 members, including six cities and King County, Washington (as of September 2006) have committed to the legally binding requirements of the Chicago Climate Exchange (CCX). Cities that join CCX get a comprehensive carbon calculator, as well as externally verified, third party audits of their performance. CCX requires its city members to reduce emissions from municipal operations a total of 6% by 2010 from a baseline of the average emissions of 1998-2001. Annual requirements from the baseline from 2006 to 2009 are: 2007: 4.25%; 2008: 4.5%; 2009: 5%. [9]

## Climate Protection Actions by Alameda County Jurisdictions

	US Mayors Climate protection agreement	ICLEI member	ICLEI CCP [check with ICLEI]	Urban Env Accords	inventory in progress	inventory done	target	plan in progress	plan completion target	plan done	related plans	contact	
<b>Alameda County</b>		x	x			x	80% by 2050	x				Carolyn	Bloede
<b>Alameda</b>	x	x				x	25% below 2005 levels by 2020			x		Cynthia?	Eliason
<b>Albany</b>	x	x				x	25% below 2005 levels by 2020	x				Nicole	Almaguer
<b>Berkeley</b>	x	x	x	x		x	80% by 2050			x		Timothy	Burroughs
<b>Dublin</b>	x	x			x							?	
<b>Emeryville</b>		x		x		x	25% below 2005 levels by 2020			x		Peter	Schultze-Allen
<b>Fremont</b>	x	x			x			x					
<b>Hayward</b>	x	x				x		x				Erik	Pearson
<b>Livermore</b>		x			x							David	Rashe
<b>Newark</b>	x	x			x			x				Susie	Cullen
<b>Piedmont</b>	x	x				x		x				Kevin	Jackson
<b>Pleasanton</b>	x	x			x							Julie	Yuan-Miu
<b>Oakland</b>		x	x	x		x				x	oil independence	Scott	Wentworth
<b>San Leandro</b>	x	x				x	25% below 2005 levels by 2020	x	Sep-08			Jacqui	Diaz
<b>Union City</b>		x			x			x				Carmela	Campbell

Data provided by StopWaste.org. Current as of 8/20/2008.



**DATE:** October 1, 2008  
**TO:** Mayor and City Council Sustainability Committee  
**FROM:** Director of Development Services Department  
**SUBJECT:** Opposition to Proposition 7

## **RECOMMENDATION**

That the Committee recommends that the City Council oppose Proposition 7.

## **SUMMARY**

This report provides a brief overview of Proposition 7 (the Solar and Clean Energy Act). Staff recommends that the Committee recommend that the Council formally oppose the proposition, which is on the November ballot. Staff believes that while the proposition has good intentions, it is poorly written, and:

1. establishes very aggressive targets (more than those established by AB 32) for utility companies to include renewable energy sources in their portfolios, which may lead to significant increases in consumers' utility bills; and
2. excludes alternative source power plants that would generate less than 30 megawatts from being counted in utility companies' portfolios, which would likely undermine efforts of smaller green energy companies to promote renewable energy.

## **BACKGROUND**

Californians generally receive electricity service from one of three types of providers:

- Investor-owned utilities (IOUs), which provide 68 percent of retail electricity service (e.g., PG&E, Southern California Edison, San Diego Gas and Electric);
- Municipal electric utilities, which provide 24 percent of retail electricity service; and
- Electric service providers (ESPs), which generally serve large industrial and commercial businesses, including California State and University of California systems, provide 8 percent of retail electricity service.

Current law requires IOUs and ESPs to increase the amount of electricity they acquire (from their own sources or purchased from others) that is generated from renewable resources, such as solar and wind power. This requirement is known as the renewables portfolio standard (RPS). Each electricity provider subject to the RPS must increase its share of electricity generated from eligible renewable resources by at least 1 percent each year so that, by the end of 2010, 20 percent of its electricity comes from renewable sources. (As discussed later, publicly owned utilities are subject to a different renewable energy requirement.)

Current law limits the amount of renewable electricity an IOU is required to acquire under the RPS, regardless of the annual RPS targets that apply to the IOU. An IOU that does not acquire sufficient amounts of renewable electricity may face monetary penalties. However, an IOU is required to acquire such higher-cost renewable electricity only to the extent that the above-market costs are less than the amount of funds that the IOU would have collected under the previously operating state subsidy program. In this way, current law caps the annual cost of complying with the RPS, both to IOUs and to their customers who ultimately pay these costs through rates charged to them.

Current law does not require publicly owned (municipal) utilities to meet the same RPS that other electricity providers are required to meet. Rather, current law directs each publicly owned utility to put in place and enforce its own renewables portfolio standard and allows each publicly owned utility to define the electricity sources that it counts as renewable. No state agency enforces publicly owned utility compliance or places penalties on a publicly owned utility that fails to meet the renewable energy goals it has set for itself.

The different types of electricity providers vary in their progress towards achieving the State's RPS goal of having 20 percent of electricity generated from renewable sources by 2010. As of 2006 (the last year for which data are available), the IOUs together had 13 percent of their electricity generated from renewable resources. The ESPs had 2 percent of their electricity generated from those same types of resources. The publicly owned utilities together had 7 percent as of 2006. However, in recent years, publicly owned utilities have increased their renewable electricity deliveries at a faster rate than have the IOUs, according to data compiled by the Energy Commission.

## **DISCUSSION**

Pitched as a solution to global warming, the proposed Solar and Clean Energy Act (Proposition 7) aims to accelerate California's shift from coal, natural gas and other fossil fuels as sources of electricity. Proponents of Proposition 7 indicate current targets are too lax, and the State Legislature is too beholden to traditional energy interests to accelerate the transition to clean energy. Some experts say it will not achieve its stated goals, will actually disrupt the development of renewable power, and that it may force small renewable energy companies out of California's market and cause higher energy bills.

California Proposition 7 would require California utilities to procure half of their power from renewable resources by 2025. In order to make that goal, levels of production of solar, wind and other renewable energy resources will more than quadruple from their current output of 10.9%. It

will also require California utilities to increase their purchase of electricity generated from renewable resources by 2% annually to meet Renewable Portfolio Standard (RPS) requirements of 40% in 2020 and 50% in 2025.

Current law (AB32) requires an RPS of 20% by 2010. There's broad agreement among policy-makers, including Governor Arnold Schwarzenegger, that in order to reach this goal, the state must get 33% of its power from renewable sources by 2020. A bill that would have set the 33% renewable standard stalled this year in the Legislature. However, given its powerful backing, advocates believe it will pass next year.

Proposition 7 would make a number of changes regarding RPS and the permitting of electricity generating facilities and transmission lines. Primarily, the measure:

- Establishes additional, higher RPS targets for electricity providers.
- Makes RPS requirements enforceable on publicly owned utilities.
- Changes the process for defining “market price of electricity.”
- Changes the cost cap provisions that limit electricity provider obligations under the RPS.
- Expands scope of RPS enforcement.
- Revises RPS-related contracting period and obligations.
- Sets a lower penalty rate in statute and removes the cap on the total penalty amount for failure to meet RPS requirements.
- Directs the use of RPS penalty revenues.
- Expands Energy Commission’s permitting authority.

The State’s Legislative Analyst’s analysis of the proposed measure is included as Exhibit A. Some of the key components are described below.

***Establishes Additional, Higher RPS Targets –***

The measure adds two new, higher RPS targets—40 percent by 2020 and 50 percent by 2025. Each electricity provider would need to meet the targets by increasing the share of electricity that it acquires that is generated from renewable energy by at least 2 percent a year, rather than the current 1 percent per year. The measure eliminates the requirement under current law that an electricity provider compensate for failure to meet an RPS target in any given year by procuring additional renewable energy in subsequent years.

***Makes RPS Requirements Enforceable on Publicly Owned Utilities –***

The measure requires publicly owned (municipal) utilities generally to comply with the same RPS as required of IOUs and ESPs, including the current RPS goal to increase to 20 percent by 2010 the proportion of each electricity provider’s electricity that comes from renewable resources. The measure also gives the Energy Commission authority to enforce RPS requirements on publicly owned utilities. The measure, however, specifies that the Energy Commission does not have the authority to approve or disapprove a publicly owned utility’s renewable resources energy contract, including its terms or conditions.

### ***Changes Process for Defining “Market Price of Electricity” –***

The measure makes two major changes in how the market price of electricity is defined for purposes of implementing the RPS. First, the measure shifts from PUC to the Energy Commission responsibility for determining the market price of electricity. Second, the measure adds three new criteria to current-law requirements that the Energy Commission would need to consider when defining the market price of electricity. These criteria include consideration of the value and benefits of renewable resources.

### ***Changes the Cost Cap Provisions That Limit Electricity Provider Obligations Under the RPS –***

As under current law, the measure provides a cost cap to limit the amount of potentially higher-cost renewable electricity that an IOU must acquire regardless of the annual RPS targets. The measure extends the cost cap limit to ESPs as well. The measure requires that an electricity provider acquire renewable electricity towards meeting annual RPS targets, or face monetary penalties, only as long as the cost of such electricity is no more than 10 percent above the Energy Commission-defined market price for electricity. The potentially higher cost of electricity generated from renewable resources would be recovered by IOUs and ESPs through rates charged to their customers, but subject to this 10 percent cost cap. Publicly owned utilities also could recover these potentially higher costs through rates charged to their customers. However, the costs of publicly owned utilities would not be subject to a cost cap similar to that which applies to IOUs and ESPs.

### ***Expands Energy Commission’s Permitting Authority –***

The measure expands the Energy Commission’s existing permitting authority in two major ways, not limited to the RPS. Specifically, the measure:

- Grants the Energy Commission the authority to permit new nonthermal renewable energy power plants capable of producing 30 megawatts of electricity or more. The new permitting authority would include related infrastructure, such as electricity transmission lines that unite the plant with the transmission network grid. Currently, this permitting authority rests with local governments.
- Gives the Energy Commission the authority to permit IOUs to construct new transmission lines within the electricity transmission grid, currently a responsibility solely of the PUC at the state level. It is unclear, however, whether the measure has removed PUC’s authority in giving it to the Energy Commission.

The measure specifies that the Energy Commission is to issue a permit for a qualifying renewable energy plant or related facility within six months of the filing of an application. However, the Commission is not required to issue the permit within the six-month time frame if there is evidence that the facility would cause significant harm to the environment or the electrical system or in some way does not comply with legal or other specified standards.

***Declares Limited Impact on Ratepayer Electricity Bills –***

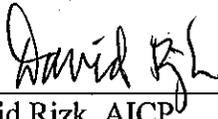
In its findings and declarations, the measure states that, in the “short term,” California’s investment in solar and clean energy (which would include the implementation of the measure) will result in no more than a 3 percent increase in electricity rates for consumers. **However, the measure includes no specific provisions to implement or enforce this declaration.**

Proposition 7 is opposed by the Democratic and Republican Parties, as well as the League of California Cities, California Municipal Utilities Association, California Special Districts Association, the Sierra Club, Union of Concerned Scientists, the Natural Resources Defense Council and Environmental Defense, California Chamber of Commerce, and many more.

**NEXT STEPS**

Should the Committee concur with staff’s recommendation, the item will be calendared for consideration by the City Council at its October 21 meeting.

Recommended by:



\_\_\_\_\_  
David Rizk, AICP  
Director of Development Services Development

Approved by:



\_\_\_\_\_  
Gregory T. Jones  
City Manager

Attachments:

Exhibit A: Analysis of Proposition 7 by the State Legislative Analyst

PROPOSITION  
**7** RENEWABLE ENERGY GENERATION.  
INITIATIVE STATUTE.

OFFICIAL TITLE AND SUMMARY

PREPARED BY THE ATTORNEY GENERAL

**RENEWABLE ENERGY GENERATION. INITIATIVE STATUTE.**

- Requires utilities, including government-owned utilities, to generate 20% of their power from renewable energy by 2010, a standard currently applicable only to private electrical corporations.
- Raises requirement for utilities to 40% by 2020 and 50% by 2025.
- Imposes penalties, subject to waiver, for noncompliance.
- Transfers some jurisdiction of regulatory matters from Public Utilities Commission to Energy Commission.
- Fast-tracks approval for new renewable energy plants.
- Requires utilities to sign longer contracts (20 year minimum) to procure renewable energy.
- Creates account to purchase rights-of-way and facilities for the transmission of renewable energy.

**Summary of Legislative Analyst’s Estimate of Net State and Local Government Fiscal Impact:**

- Increased state administrative costs of up to \$3.4 million annually for the regulatory activities of the California Energy Resources Conservation and Development Commission and the California Public Utilities Commission, paid for by fee revenues.
- Unknown impact on state and local government costs and revenues due to the measure’s uncertain impact on retail electricity rates. In the short term, the prospects for higher rates—and therefore higher costs, lower sales and income tax revenues, and higher local utility tax revenues—are more likely. In the long term, the impact on electricity rates, and therefore state and local government costs and revenues, is unknown.

ANALYSIS BY THE LEGISLATIVE ANALYST

**BACKGROUND**

**California Electricity Providers**

Californians generally receive electricity service from one of three types of providers:

- Investor-owned utilities (IOUs), which provide 68 percent of retail electricity service.
- Local, publicly owned utilities, which provide 24 percent of retail electricity service.
- Electric service providers (ESPs), which provide 8 percent of retail electricity service.

(See the nearby text box for definitions of commonly used terms throughout this analysis.)

**Investor-Owned Utilities.** The IOUs are owned by private investors and provide electricity service for profit. The state’s three largest electricity IOUs are Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric. Each IOU has a unique, defined geographic service area. State law requires each IOU to provide electricity service to customers within its service area. The rates that IOUs can charge their customers are determined by the California Public Utilities Commission (PUC). In addition, PUC regulates how IOUs provide electricity

**Commonly Used Terms—Proposition 7**

**Energy Commission (Energy Resources Conservation and Development Commission).** The state agency that forecasts energy supply and demand, implements energy conservation programs, conducts energy-related research, and permits certain power plants.

**ESP (Electric Service Provider).** A company that provides electricity service directly to customers who have chosen not to receive service from the utility that serves their geographic area.

**IOU (Investor-Owned Utility).** A privately owned electric utility that has a defined geographic service area and is required by state law to serve customers in that area. The Public Utilities Commission regulates the IOU’s rates and terms of service.

**Market Price of Electricity.** A benchmark price of electricity that is determined by a state agency according to a definition and criteria specified in state law.

**Publicly Owned Utility.** A local government agency, governed by a board—either elected by the public or appointed by a local elected body—that provides electricity service in its local area.

**PUC (Public Utilities Commission).** The state agency that regulates various types of utilities, including IOUs and ESPs.

**RPS (Renewables Portfolio Standard).** Requirement that electricity providers increase their share of electricity from renewable resources (such as wind or solar power) according to a specified time line.

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service to their customers. These conditions on electricity rates and service are known as “terms of service.”

**Publicly Owned Utilities.** A publicly owned electric utility is a local government agency, governed by a board—either elected by the public or appointed by a local elected body—that provides electricity service in its local area. Publicly owned electric utilities are not regulated by PUC. Rather, they set their own terms of service. California’s major publicly owned electric utilities include the Los Angeles Department of Water and Power and the Sacramento Municipal Utility District.

**Electric Service Providers.** The ESPs provide electricity service to customers who have chosen not to receive service from the utility that serves their geographic area. Instead, these customers have entered into “direct access” contracts with ESPs. Under a direct access contract, an ESP delivers electricity to the customer through the local utility’s electricity transmission wires.

There are currently around 20 registered ESPs in the state. These ESPs generally serve large industrial and commercial customers. The ESPs also provide electricity to some state and local government agencies, such as several University of California campuses and some local school districts.

The state’s regulatory authority over ESPs is limited. Although the PUC does not set an ESP’s terms of service, including the rates it charges its customers, it does require ESPs to meet a limited set of requirements, including proof that they have enough electricity supply to meet demand.

### Electricity Infrastructure

**Major Components.** Four principal components comprise California’s system for generating and delivering electricity:

- Electricity generating facilities.
- The interstate electricity transmission grid.
- Electricity transmission lines that tie generation facilities to the grid.
- Electricity distribution lines that connect the electricity grid to electricity consumers.

Regulatory responsibility for permitting this infrastructure is held by one or more federal, state, and local agencies, depending on the particular project.

**Permitting Authority.** Permitting authority for an electricity generating facility is determined by the type and size of the facility to be operated.

For example, hydroelectric generating facilities, such as dams, are permitted by the Federal Energy Regulatory Commission (FERC). Thermal electricity generating facilities—primarily natural gas-fired power plants—capable of generating 50 megawatts or more of electricity are issued permits by the state’s Energy Resources Conservation and Development Commission (Energy Commission). Most other electricity generating facilities—including many types of renewable energy generating facilities, such as wind turbines and nonthermal solar power plants—are permitted by local government.

Permitting authority over electricity transmission lines depends upon the function of the line to be built, as well as the type of electricity provider that will own the line. Depending upon its function and ownership, a line may be permitted by FERC, the Energy Commission, PUC, or local government.

**Energy Commission’s Permit Processing Time Frames.** Existing law defines the time frames within which the Energy Commission must approve or deny an application to construct and operate an electricity generating facility or transmission line under its jurisdiction. Those time frames are 18 months for most applications, or 12 months for applications meeting certain conditions.

### Energy From Renewable Resources

**Renewables Portfolio Standard.** Current law requires IOUs and ESPs to increase the amount of electricity they acquire (from their own sources or purchased from others) that is generated from renewable resources, such as solar and wind power. This requirement is known as the renewables portfolio standard (RPS). Each electricity provider subject to the RPS must increase its share of electricity generated from eligible renewable resources by at least 1 percent each year so that, by the end of 2010, 20 percent of its electricity comes from renewable sources. (As discussed later, publicly owned utilities are subject to a different renewable energy requirement.)

**IOU Obligations Under the RPS Limited by a Cost Cap.** Current law limits the amount of renewable electricity an IOU is required to acquire under the RPS, regardless of the annual RPS targets that apply to the IOU. The limit is based on two cost-related factors:

- The “market price of electricity,” as that price is defined by PUC according to criteria specified in state law.

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- The amount of money that would have been collected from electricity ratepayers under a previously operating state program to subsidize the cost of renewable electricity.

An IOU is required to acquire renewable electricity even at a cost that exceeds the PUC-defined market price of electricity. An IOU that does not acquire sufficient amounts of renewable electricity may face monetary penalties. However, an IOU is required to acquire such higher-cost renewable electricity only to the extent that the above-market costs are less than the amount of funds that the IOU would have collected under the previously operating state subsidy program. In this way, current law caps the annual cost of complying with the RPS, both to IOUs and to their customers who ultimately pay these costs through rates charged to them.

**Enforcing the RPS.** Current law requires PUC to enforce IOU and ESP compliance with the RPS. Only the IOUs are required to submit plans that describe how they will meet RPS targets at the least possible cost. In addition, IOUs and ESPs generally must offer contracts to purchase renewable resources of no less than ten years.

The PUC may fine an IOU or an ESP that fails to meet its year-to-year RPS target. The PUC has set the amount of the penalties at 5 cents per kilowatt hour by which the IOU or ESP falls short of its RPS target. The PUC has capped the total amount of penalties an IOU or ESP can be charged in a year at \$25 million. Current law does not direct the use of these penalty monies, which generally are deposited in the state General Fund.

**Publicly Owned Utilities Set Their Own Renewable Energy Standards.** Current law does not require publicly owned utilities to meet the same RPS that other electricity providers are required to meet. Rather, current law directs each publicly owned utility to put in place and enforce its own renewables portfolio standard and allows each publicly owned utility to define the electricity sources that it counts as renewable. No state agency enforces publicly owned utility compliance or places penalties on a publicly owned utility that fails to meet the renewable energy goals it has set for itself.

**Progress Towards Meeting the State's RPS Goal.** The different types of electricity providers vary in their progress towards achieving the state's RPS goal of having 20 percent of electricity generated from renewable sources by 2010. As of 2006 (the last year for which data are available), the IOUs together had 13 percent of their electricity generated from

renewable resources. The ESPs had 2 percent of their electricity generated from those same types of resources. Using their own, various definitions of "renewable resources," the publicly owned utilities together had nearly 12 percent of their electricity generated from renewable resources. If the current definition of renewable resources in state law that applies to IOUs and ESPs (which does not include large hydroelectric dams, for example) is applied to the publicly owned utilities, their renewable resources count falls to just over 7 percent as of 2006. However, in recent years, publicly owned utilities have increased their renewable electricity deliveries at a faster rate than have the IOUs, according to data compiled by the Energy Commission.

## PROPOSAL

### Overview of Measure

This measure makes a number of changes regarding RPS and the permitting of electricity generating facilities and transmission lines. Primarily, the measure:

- Establishes additional, higher RPS targets for electricity providers.
- Makes RPS requirements enforceable on publicly owned utilities.
- Changes the process for defining "market price of electricity."
- Changes the cost cap provisions that limit electricity provider obligations under the RPS.
- Expands scope of RPS enforcement.
- Revises RPS-related contracting period and obligations.
- Sets a lower penalty rate in statute and removes the cap on the total penalty amount for failure to meet RPS requirements.
- Directs the use of RPS penalty revenues.
- Expands Energy Commission's permitting authority.

Each of these components is described below.

### Individual Components of Measure

**Establishes Additional, Higher RPS Targets.** The measure adds two new, higher RPS targets—40 percent by 2020 and 50 percent by 2025. Each electricity provider would need to meet the targets by increasing the share of electricity that it acquires that is generated from renewable energy by at least 2 percent a year, rather than the current 1 percent per year. The measure eliminates the requirement

under current law that an electricity provider compensate for failure to meet an RPS target in any given year by procuring additional renewable energy in subsequent years.

***Makes RPS Requirements Enforceable on Publicly Owned Utilities.*** The measure requires publicly owned utilities generally to comply with the same RPS as required of IOUs and ESPs, including the current RPS goal to increase to 20 percent by 2010 the proportion of each electricity provider's electricity that comes from renewable resources. The measure also gives the Energy Commission authority to enforce RPS requirements on publicly owned utilities. The measure, however, specifies that the Energy Commission does not have the authority to approve or disapprove a publicly owned utility's renewable resources energy contract, including its terms or conditions.

***Changes Process for Defining "Market Price of Electricity."*** The measure makes two major changes in how the market price of electricity is defined for purposes of implementing the RPS. First, the measure shifts from PUC to the Energy Commission responsibility for determining the market price of electricity. Second, the measure adds three new criteria to current-law requirements that the Energy Commission would need to consider when defining the market price of electricity. These criteria include consideration of the value and benefits of renewable resources.

***Changes the Cost Cap Provisions That Limit Electricity Provider Obligations Under the RPS.*** As under current law, the measure provides a cost cap to limit the amount of potentially higher-cost renewable electricity that an IOU must acquire regardless of the annual RPS targets. The measure extends the cost cap limit to ESPs as well. The measure requires that an electricity provider acquire renewable electricity towards meeting annual RPS targets, or face monetary penalties, only as long as the cost of such electricity is no more than 10 percent above the Energy Commission-defined market price for electricity. The potentially higher cost of electricity generated from renewable resources would be recovered by IOUs and ESPs through rates charged to their customers, but subject to this 10 percent cost cap. Publicly owned utilities also could recover these potentially higher costs through rates charged to their customers. However, the costs of publicly owned utilities would not be subject to a cost cap similar to that which applies to IOUs and ESPs.

***Expands Scope of RPS Enforcement.*** The measure expands PUC's current RPS-related enforcement mechanisms over IOUs to encompass ESPs. The enforcement mechanisms include review and adoption of renewable resources procurement plans, related rate-setting authority, and penalty authority. The measure grants to the Energy Commission similar RPS-related enforcement authority over publicly owned utilities.

***Revises RPS-Related Contracting Period and Obligations.*** The measure requires all electricity providers—including publicly owned utilities—to offer renewable energy procurement contracts of no less than 20 years, with certain exceptions. The measure further requires an electricity provider to accept all offers for renewable energy that are at or below the market price of electricity as defined by the Energy Commission.

***Sets Lower Penalty Rate in Statute and Removes Cap on Total Penalty Amount.*** The measure includes a formula to determine monetary penalties for an electricity provider that fails to sign contracts for sufficient amounts of renewable energy. The penalty formula is 1 cent per kilowatt hour by which the provider falls short of the applicable RPS target. The measure's formula therefore reflects a penalty *rate* that is lower than the 5 cents per kilowatt hour penalty rate currently established by the PUC. However, the measure also specifies that neither PUC nor the Energy Commission shall cap the *total* amount of penalties that may be placed on an electricity provider in any given year.

In addition, the measure states that no electricity provider shall recover the cost of any penalties through rates paid by its customers. However, it is unclear how this prohibition will apply to publicly owned utilities. This is because publicly owned utilities typically have no other source of revenues which could be used to pay a penalty other than rates paid by their customers.

Finally, the measure also specifies the conditions under which PUC or the Energy Commission, as applicable, may waive the statutorily prescribed penalty, such as when the electricity provider demonstrates a "good faith effort" to meet the RPS.

***Directs Use of Penalty Monies.*** The measure directs that any RPS-related penalties (along with other specified revenues) be used to facilitate, through property or right-of-way acquisition and construction of transmission facilities, development of transmission infrastructure necessary to achieve RPS. The measure specifies that the Energy Commission will hold title to any properties acquired with such funds.

**Expands Energy Commission's Permitting Authority.** The measure expands the Energy Commission's existing permitting authority in two major ways, not limited to the RPS. Specifically, the measure:

- Grants the Energy Commission the authority to permit new nonthermal renewable energy power plants capable of producing 30 megawatts of electricity or more. The new permitting authority would include related infrastructure, such as electricity transmission lines that unite the plant with the transmission network grid. Currently, this permitting authority rests with local governments.
- Gives the Energy Commission the authority to permit IOUs to construct new transmission lines within the electricity transmission grid, currently a responsibility solely of the PUC at the state level. It is unclear, however, whether the measure has removed PUC's authority in giving it to the Energy Commission.

The measure specifies that the Energy Commission is to issue a permit for a qualifying renewable energy plant or related facility within six months of the filing of an application. However, the commission is not required to issue the permit within the six-month time frame if there is evidence that the facility would cause significant harm to the environment or the electrical system or in some way does not comply with legal or other specified standards.

**Declares Limited Impact on Ratepayer Electricity Bills.** In its findings and declarations, the measure states that, in the "short term," California's investment in solar and clean energy (which would include the implementation of the measure) will result in no more than a 3-percent increase in electricity rates for consumers. However, the measure includes no specific provisions to implement or enforce this declaration.

## FISCAL EFFECTS

### State and Local Administrative Impacts

**Increased Energy Commission Costs.** The measure will increase the annual administrative costs of the Energy Commission by approximately \$2.4 million due to new responsibilities and expansion of existing duties. Under current law, the additional costs would be funded by fees paid by electricity customers.

The measure gives the Energy Commission new responsibilities which currently are carried out by PUC—namely, defining the market price of electricity and permitting IOU-related transmission lines. However, significant offsetting reductions in PUC's costs may not result under this measure. This is because the measure does not amend the State Constitution to delete from PUC's portfolio of responsibilities those which are given to the Energy Commission. To the extent PUC continues to carry out its existing duties, there likely will not be offsetting savings to PUC.

**Increased PUC Costs.** In addition, the measure's other requirements will increase annual administrative costs of the PUC by up to \$1 million. These additional costs will result from greater workload related to the increased RPS targets. Under current law, these additional costs would be funded by fees paid by electricity customers.

**Uncertain Effect on Local Government Administrative Costs.** The measure shifts from local government to the Energy Commission responsibility for permitting certain renewable energy facilities. As a consequence, the measure will result in administrative cost savings of an unknown amount to local governments. However, local governments may face new costs associated with representing their interests at Energy Commission proceedings to permit renewable energy facilities. It is uncertain whether, on balance, savings to local governments will outweigh costs resulting from this measure. In any event, the overall net impact on local government administrative costs statewide is likely to be minor.

### State and Local Government Costs and Revenues

The primary fiscal effect of this measure on state and local governments would result from any effect it would have on electricity rates. As discussed below, changes in electricity rates would affect both government costs and revenues.

### Unknown Effect on State and Local Government Costs

**Overview.** Changes in electricity rates would affect government costs since state and local governments are large consumers of electricity. It is unknown, however, how the measure will affect electricity rates, both in the short term and in the longer term. This is because it is difficult to predict the relative prices of renewable resources and those of conventional electricity sources, such as natural gas. The measure could result in higher or lower electricity rates from what they would otherwise be.

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**Short Term.** We conclude that the prospects for higher electricity rates are more likely in the short term, based on a comparison of current cost factors for key renewable resources with those for conventional resources. These cost factors include the cost of facility construction and technology, as well as day-to-day operational costs, which include the cost of inputs into the electricity generation process such as fuel. Over the short term at least, these cost factors are more likely to keep the cost of electricity generated from renewable resources, and hence the rates paid by electricity customers for that electricity, above the cost of electricity generated from conventional resources. However, the potential for higher electricity rates to the customer, including state and local governments, might be limited by the measure. This is because the measure caps the cost that privately owned electricity providers must pay for electricity from renewable resources. The cap will be set in relation to the market price of electricity, which will be determined by the Energy Commission. However, because the measure allows the commission substantial discretion in determining the market price of electricity, it is uncertain how the commission will set this cap. In turn, the effect of the cap on the price of electricity paid by customers is unknown.

**Long Term.** In the long run, there are factors that may be affected by the measure that have the potential either to increase or to decrease electricity rates from what they otherwise would be. For example, to the extent that the measure advances development of renewable energy resources in a manner that lowers their costs, electricity customers might experience longer-term savings. On the other hand, the same cost factors that could lead to short-term electricity rates that are higher might also lead to higher long-run electricity rates. To the extent that the measure requires electricity providers to acquire more costly electricity than they otherwise would, they will experience longer-term cost increases. It is unknown whether, on balance, factors that could increase electricity rates over

the long term will outweigh those that could decrease electricity rates over the long term. Therefore, the long-term effect of the measure on government costs is unknown.

**Unknown Effect on State and Local Government Revenues**

**Overview.** State and local *revenues* also would be affected by the measure's impact on electricity rates. This is for two reasons. First, some local governments charge a tax on the cost of electricity use within their boundaries. To the extent that the measure results in an increase or a decrease in electricity rates compared to what they would be otherwise, there would be a corresponding increase or decrease in these local tax revenues. Second, tax revenues received by governments are affected by business profits, personal income, and taxable sales—all of which in turn are affected by what individuals and businesses pay for electricity. Higher electricity costs will lower government revenues, while lower electricity costs will raise these revenues.

**Short Term.** On balance, as explained above, we believe that the prospects for electricity rates that are higher than they would otherwise be are more likely in the short term. However, as also is the case with state and local government costs, the measure's potential to lower state and local government revenues due to higher electricity rates might be limited by the measure's cost cap provision. Thus, for the short term, to the extent that the measure results in higher electricity rates from what they would otherwise be, local utility user tax revenues would increase and state and local sales and income tax revenues would decrease. The overall short-term net effect of the measure on state and local revenues is unknown.

**Long Term.** As for the long run, as explained above, the measure has the potential to either increase or decrease electricity rates. Because the measure's effect on long-term electricity rates is unknown, the measure's effect on long-term government revenues is also unknown.