# **Sustainability Task Force Agenda**



A Committee of the Chico City Council Mayor Ann Schwab, Chair

Meeting of July 6, 2009 - 3:00 p.m. to 5:00 p.m.

Council Chamber Building, 421 Main Street, Conference Room No. 1

# 1. <u>CONSIDERATION OF PROPOSED REVISIONS TO THE CHICO MUNICIPAL CODE REGARDING RESIDENTIAL ENERGY CONSERVATION MEASURES REQUIRED UPON RESALE.</u>

The Task Force will review and consider recommendations from the City's Building Official to amend the Chico Municipal Code to upgrade the energy conservation measures required to be installed upon the sale, exchange, or transfer of residential properties.

# 2. <u>CONSIDERATION OF SUPPORTING THE CALIFORNIA PRODUCT STEWARDSHIP COUNCIL'S PRODUCER RESPONSIBILITY CAMPAIGN.</u>

The California Product Stewardship Council (CPSC) is a coalition of local governments, businesses, and other groups related to solid waste, recycling, resource conservation, environmental protection, and water quality working together to support product stewardship and extended producer responsibility from manufacturers and businesses who produce goods and products. The Task Force will consider whether to recommend that the City Council support the CPSC's efforts.

#### 3. REPORTS AND COMMUNICATIONS

- **a. Update on Preparation of the Climate Action Plan** Staff will provide an update on the progress in developing a draft Climate Action Plan.
- b. Update on Development of Sustainability Indications The Task Force will consider additional suggestions for sustainability indicators provided by Task Force member Jon Luvaas (email attached).

#### 4. BUSINESS FROM THE FLOOR

- a. Members of the public may address the Committee at this time on any matter not already listed on the agenda, with comments being limited to three minutes. The Committee cannot take any action at this meeting on requests made under this section of the agenda.
- **5. ADJOURNMENT** The meeting will adjourn no later than 5:00 p.m.

#### **ATTACHMENTS:**

Staff Report/Proposed Residential Energy Conservation Measures Information Re: California Product Stewardship Council Email from Jon Luvaas Re: Additional Indicators

Distribution available in the office of the City Clerk:

Prepared: 7/2/09 Chico City Clerk's Office

Posted: 7/2/09 411 Main Street, Chico, CA 95928 Prior to: 5:00 p.m. (530) 896-7250



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#### Members:



### Sustainability Task Force Agenda Staff Report

Meeting Date: 7/6/09

DATE: July 2, 2009

TO: SUSTAINABILITY TASK FORCE

FROM: MANAGEMENT ANALYST LINDA HERMAN, 896-7241

RE: CONSIDERATION OF PROPOSED REVISIONS TO THE CHICO MUNICIPAL CODE REGARDING

RESIDENTIAL ENERGY CONSERVATION MEASURES REQUIRED UPON RESALE.

#### **RECOMMENDATION:**

The Sustainability Task Force is requested to provide recommendations on whether to forward these proposed amendments to the City Council for consideration.

#### **BACKGROUND:**

While discussing potential climate action measures in previous meetings, the Task Force considered additional measures at time of sale of existing home recognizing existing housing stock is a major factor in energy use. At one of the meetings, the City's Building Official suggested updating the City's existing Municipal Code (CMC) Section 16.60, which was adopted in 1990, that requires the installation of certain energy conservation measures upon the sale, transfer, or exchange of existing residential housing. Given the age of CMC section 16.60, it was worthy of a review and reasonable adjustments to bring it more in line with current energy efficiency standards with cost effective products easily obtainable. A copy of this Code section is attached as Exhibit "A."

#### **DISCUSSION:**

The Building Official has reviewed CMC Section 16.60 and her recommendations for revising the CMC are noted in red on the attached Exhibit B. In summary, the retrofit revisions include:

- 1. Changing the applicability of these requirements to duplexes and single-family homes constructed before 1990 instead of 1983, and to multifamily dwellings constructed before June 1991.
- 2. Upgrading the Ceiling Insulation minimum requirement from a thermal resistance rating of R-19 to R-30.
- Adding the provision to require under-floor insulation with a minimum rating of R-19 for houses with underfloor clearances.
- 4. Adding the insulation of the hot and cold water lines to water heaters.
- Adding requiring low-flow sink faucets with 2.75 gallons per minute flow minimum and/or aerators on all faucets.
- 6. Adding requiring low-flow (1.6 gallon/flush) toilets.
- 7. Adding requiring permanently affixed weather-stripping and door sweeps.
- 8. Adding requiring duct insulation to a minimum of R-4-2.

Some other suggestions that will be discussed at the meeting is whether to:

- 1. Require re-inspection of all home resales
- 2. Increase the cost limitation in Section 16.60.110 from the current amount of \$500, a 1990 figure.
- 3. Adding that Title companies not close escrow until the energy conservation certification is approved.

#### **ATTACHMENTS:**

Exhibit "A": CMC Section 16.60

Exhibit "B": Building Official Proposed CMC Revisions

#### Chapter 16.60

# ENERGY CONSERVATION MEASURES REQUIRED INCIDENT TO TRANSFERS OF RESIDENTIAL HOUSING

Section:	
16.60.010	Purpose.
16.60.020	Administration by building official.
16.60.030	Administrative review of a determination or an action of the building official by the community development director.
16.60.040	Appeal from decision of the community development director.
16.60.050	Administrative review and appeals - Aggrieved person.
16.60.060	Residential housing defined.
16.60.070	Sales, exchanges, and other transfers of residential housing subject to chapter.
16.60.080	Sales, exchanges, and other transfers of residential housing subject to chapter - Exceptions.
16.60.090	Agreements providing for the sale, exchange, or other transfer of residential housing.
16.60.100	Energy conservation standards to be complied with incident to the sale, exchange or other transfer of residential housing.
16.60.110	Cost limitations on compliance with energy conservation standards.
16.60.120	Certification of compliance with energy conservation standards.
16.60.130	Energy conservation inspections conducted by building official.
16.60.140	Authorization of other persons to conduct energy conservation inspections.
16.60.150	Transferee's assumption of obligation to correct noncomplying conditions.
16.60.160	Violations.

#### 16.60.010 Purpose.

This chapter is adopted pursuant to the municipal affairs provisions of Section 201 of the city Charter for the purpose of requiring residential housing sold, exchanged, or otherwise transferred within the city to be provided with ceiling insulation and other energy conservation measures necessary to meet minimum energy conservation standards. (Ord. 1843 §1 (part))

### 16.60.020 Administration by building official.

The building official shall be primarily responsible for administration of the provisions of this chapter subject to the overall direction and control of the director. In carrying out such responsibilities, the building official, or an authorized representative, shall issue the energy conservation compliance certificates required by this chapter incident to a transfer of residential housing, conduct the inspections of residential housing necessary to issue such compliance certificates, grant authorization to make such inspections to persons qualified to do so, and enforce all other provisions of this chapter

as hereinafter provided for.

(Ord. 1843 §1 (part), Ord. 2012 §3 (part), Ord. 2268, Ord. 2364 §332)

# 16.60.030 Administrative review of a determination or an action of the building official by the director.

- A. Right to Administrative Review. Any person aggrieved by a determination made or action taken by the building official pursuant to this chapter may apply to the director for administrative review of such determination or action.
- B. Applications for Administrative Review. Applications for administrative review of a determination made or action taken by the building official shall be made in writing and shall be filed in the office of the director no later than 15 days following the date such determination or action was made or taken, or where a written report is required to be served, the date such report is served; provided that the director may extend the time for filing an application for good cause shown. In addition to setting forth a request for administrative review of a determination made or action taken by the building official, such application shall contain a brief statement of the reasons why the applicant believes that such determination or action does not comply with the provisions of this chapter and the relief requested by the applicant from such determination or action.
- C. Decision on an Application for Administrative Review. Upon the filing of an application for administrative review of a determination made or action taken by the building official, the director shall consider the application and render a decision either affirming the determination or action of the building official, or reversing or modifying such determination or action. Prior to rendering a decision, the director may, with sole discretion, convene an informal hearing for the purpose of reviewing evidence or hearing arguments bearing on such decision, provided notice of the date, time, and place of such hearing is served a reasonable time prior to such hearing on the applicant and on any other person who would be aggrieved by a decision reversing or modifying the determination or action of the building official and who has filed with the director a written request for notice of such decision. After rendering a decision, the director shall promptly inform the building official of the decision and cause a notice of the decision to be served on the applicant and any other person who would be aggrieved by a decision reversing or modifying the determination or action of the building official and who has filed with the director a written request for notice of such decision.

(Ord. 1843 §1 (part), Ord. 2012 §3 (part), Ord. 2268, Ord. 2364 §333)

#### 16.60.040 Appeal from decision of the director.

Any person aggrieved by a decision of the director following the filing of an application for the administrative review of a determination made or action taken by the building official, may appeal such decision to the city council within the time and in the manner provided for by Title 2 of this code.

(Ord. 1843 §1 (part), Ord. 2004 §23, Ord. 2012 §3 (part), Ord. 2364 §334)

#### 16.60.050 Administrative review and appeals - Aggrieved person.

A person shall be deemed "aggrieved" for purposes of the administrative review of a determination made or action taken by the building official pursuant to this chapter, or for

purposes of the appeal of a decision of the director following the filing of an application for administrative review of such determination or action, if such a person is an owner, transferee or occupant of the building or structure which is the subject of such determination, action or decision.

(Ord. 1843 §1 (part), Ord. 2012 §3 (part), Ord. 2364 §335)

#### 16.60.060 Residential housing defined.

The term "residential housing," as used in this chapter, shall mean any building or structure designed or used as a residence, provided, however, that the term "residential housing" shall not include "mobile homes," "manufactured housing," or "factory-built housing" as defined in Division 13 of the California Health and Safety Code (commencing with Section 17000 of the Health and Safety Code). (Ord. 1843 §1 (part))

# 16.60.070 Sales, exchanges, and other transfers of residential housing subject to chapter.

Except as otherwise provided for herein, this chapter shall apply to any sale, exchange, or other transfer of a legal or equitable interest in and to the fee simple title to real property containing residential housing which entitles the transferee to possession of such housing, or any sale, exchange or other transfer of a separate interest in a "community apartment project," a "condominium project," or a "stock cooperative" as defined in Division 2 of the California Civil Code (commencing with Section 761 of the Civil Code), which entitles the transferee to possession of a residential dwelling unit located within such project or cooperative.

(Ord. 1843 §1 (part))

# 16.60.080 Sales, exchanges, and other transfers of residential housing subject to chapter - Exceptions.

This chapter shall not apply to the following transfers of residential housing:

- A. The sale, exchange, or other transfer of residential housing which contains no more than two dwelling units and was constructed pursuant to a building permit issued on or after June 1, 1983, or residential housing containing three or more dwelling units which was constructed on or after June 1, 1984;
- B. The sale, exchange, or other transfer of residential housing which was inspected and certified as being in compliance with the energy conservation standards adopted by this chapter or included in Ordinance No. 1480 adopted by the city council on October 5, 1982;
- C. Sales, exchanges, or other transfers of residential housing pursuant to a court order, including, but not limited to sales, exchanges, or other transfers ordered by a probate court incident to the administration of an estate, sales or other transfers made pursuant to a writ of execution, sales in any judicial foreclosure sale, sales, exchanges, or other transfers by a trustee in bankruptcy, and sales, exchanges, or other transfers resulting from a decree for specific performance;
- D. Sales or other transfers of residential housing to a mortgagee by a mortgagor in default, sales or other transfers to a beneficiary of a deed of trust by a trustor who is in default, and sales in any nonjudicial foreclosure sale after a default in the obligations

- secured by a mortgage, deed of trust, or other instrument containing such power of sale;
- E. Sales or other transfers of residential housing from one co-owner to one or more other co-owners;
- F. Sales or other transfers of residential housing made to a spouse, or to a person or persons in the lineal line of consanguinity of one or more of the transferor;
- G. Sales or other transfers of residential housing between spouses resulting from a decree of dissolution of marriage or a decree of legal separation, or from a property settlement agreement incident to such a decree; and
- H. Sales, exchanges, or other transfers of residential housing to or from any governmental entity.

(Ord. 1843 §1 (part))

# 16.60.090 Agreements providing for the sale, exchange, or other transfer of residential housing.

Any agreement providing for the sale, exchange, or other transfer of residential housing subject to the provisions of this chapter, including any agreement granting an option to acquire such housing, shall include a provision which states as follows:

This agreement and the sale, exchange or other transfer of residential housing provided for by this agreement may be subject to the provisions of Title 16 of the Chico Municipal Code which prohibits the sale, exchange or other transfer of residential housing unless and until the city building official has certified that such housing is in compliance with the energy conservation standards adopted in Title 16 of the Chico Municipal Code.

(Ord. 1843 §1 (part))

# 16.60.100 Energy conservation standards to be complied with incident to the sale, exchange or other transfer of residential housing.

No person shall sell, exchange, or otherwise transfer residential housing subject to the provisions of this chapter unless and until the building official has certified that such housing is in compliance with the following energy conservation standards:

- A. The ceilings of all inhabitable portions of such residential housing shall be overlaid with insulation which has a minimum thermal resistance rating of at least R-19 except:
  - 1. Where such ceilings are overlaid with insulation having a thermal resistance rating of not less than R-13 which was installed prior to March 23, 1978; or
  - 2. Where the attic of such buildings has a headroom of less than 30 inches at the attic peak.
- B. All electric resistance domestic water heaters, and all natural gas or other fossil fueled domestic water heaters, shall be fitted with external insulation blankets with a minimum thermal resistance rating of R-6 except:
  - 1. Where the thermal resistance rating of insulation within the water heater is at least R-12; or
  - 2. Where it is impractical to wrap the water heater with an external insulating blanket by reason of the fact that the distance between the heater and an adjoining wall is less than two inches; or

- 3. Where the manufacturer's instructions for the water heater would preclude the water heater from being fitted with an external insulation blanket.
- C. All shower fixtures shall be fitted with in-line shower restrictors or low flow shower heads which restrict the maximum flow of water to not more than three gallons per minute except:
  - 1. Where the shower head has an existing flow rate of less than three gallons per minute as a result of reduced water pressure behind the shower head; or
  - 2. Where the shower head and shower arm are of a ball joint type which is connected within a wall.
- D. All hinged doors exposed to the exterior or to unheated or uncooled areas shall be fully weather stripped or gasketed in a manner which effectively and reliably limits air infiltration.
- E. All major cracks, joints, and other openings in building exteriors or portions of a building exposed to unheated or uncooled areas, and all openings from heated or air conditioned spaces into an attic, including but not limited to openings around plumbing vents, pipes, electrical wiring, or furnace flues, shall be caulked or otherwise sealed to limit air infiltration.

(Ord 1843 §1 (part), Ord 1870)

#### 16.60.110 Cost limitations on compliance with energy conservation standards.

In order to comply with the ceiling insulation standards set forth in Subpart A of Section 16.60.100 of this chapter, the owner of residential housing subject to the provisions of this chapter shall be required to install all of the insulation necessary to comply with such standards without regard to the cost of such compliance. However, in order to comply with the remaining energy conservation standards set forth in Section 16.60.100 of this chapter, the owner of residential housing subject to the provisions of this chapter shall not be required to make an expenditure in excess of the following sums during the 18-month period prior to the date the sale, exchange, or other transfer of such residential housing occurs:

- A. In the case of residential housing which consists of a detached single-family dwelling unit, the sum of \$500.00, including the cost of installing ceiling insulation, if necessary; and
- B. In the case of residential housing which consists of two or more multifamily dwelling units, the sum of \$350 per dwelling unit, including the cost of installing ceiling insulation, if necessary.

Accordingly, if in complying with all of the remaining energy conservation standards set forth in Section 16.60.100, the owner of residential housing subject to the provisions of this chapter would be required to spend a sum in excess of the amounts set forth in this section, the owner of such housing shall comply with those energy conservation standards set forth in Section 16.60.100, in addition to ceiling insulation, which the owner of the residential housing deems to be cost effective and for which the total cost does not exceed the sums set forth in this section.

(Ord. 1843 §1 (part))

#### 16.60.120 Certification of compliance with energy conservation standards.

The building official shall issue a certificate evidencing that residential housing subject to the provisions of this chapter is in compliance with the energy conservation standards adopted by this chapter if:

- A. The building official has inspected such housing and found it to be in compliance with such standards; or
- B. A person authorized to make energy conservation inspections in the manner hereinafter provided by this chapter has filed a declaration with the building official, in a form prescribed by the building official, stating that such person has inspected such housing and found it to be in compliance with such standards.

  (Ord. 1843 §1 (part))

### 16.60.130 Energy conservation inspections conducted by building official.

The building official shall conduct inspection of residential housing in order to determine whether such housing is in compliance with the energy conservation standards adopted by this chapter whenever an application for such inspection is filed with the building division by an owner of such housing or such owner's authorized representative. Such application shall be in a form prescribed by the building official and shall be accompanied by an inspection fee in an amount established by resolution of the city council.

If, as a result of such inspection, the building official determines that the residential housing being inspected is in compliance with the energy conservation standards adopted by this chapter, the building official shall promptly issue a certificate evidencing such compliance and cause a copy of such certificate to be served on the owner of such housing or such owner's authorized representative. However, if, as a result of such inspection, the building official determines that the residential housing being inspected is not in compliance with the energy conservation standards adopted by this chapter, the building official shall promptly cause a report to be prepared which identifies, with particularity, all noncomplying conditions and cause a copy of such report to be served on the owner of such housing or such owner's authorized representative.

Any certificate of compliance or inspection report issued or prepared by the building official pursuant to this section shall be deemed to have been served on the owner of residential housing or such owner's authorized representative when a copy of such certificate or report is personally delivered to such owner or representative, or when a copy of such certificate or report is placed in the United States mail, registered and postage prepaid, addressed to such owner or authorized representative at the address appearing on the inspection application.

(Ord. 1843 §1 (part))

# 16.60.140 Authorization of other persons to conduct energy conservation inspections.

The building official shall authorize other persons to conduct the energy conservation inspections which are necessary in order to certify compliance with the energy conservation standards adopted by this chapter if such person is certified as a building inspector by the International Conference of Building Officials, holds a license as a general contractor or insulation contractor issued by the Contractors' State License Board,

holds a license as a structural pest control operator issued by the Structural Pest Control Board, or is otherwise determined by the building official, on the basis of education and/or experience, to be qualified to conduct such inspections. Applications for such authorization shall be filed with the building division, shall be in a form and contain the information prescribed by the building official, and shall be accompanied by a fee in an amount established by resolution of the council.

If, after authorizing a person to conduct energy conservation inspections necessary in order to certify compliance with the energy conservation standards adopted by this chapter, the building official determines that such person misrepresented such person's qualifications for such authorization, no longer holds the certification or license relied upon by the building official as the basis for granting such authorization, or filed a declaration certifying that such residential housing is in compliance with such energy conservation standards without having inspected such housing or when it is clear that the housing did not comply with such standards, the building official shall revoke the authorization granted to such person. However, the building official shall not revoke an authorization to conduct energy conservation inspections unless the building official has given reasonable prior notice of the building official's proposed action to the person granted such authorization and given to such person an opportunity to appear before the building official and be heard on the proposed revocation.

(Ord. 1843 §1 (part), Ord. 2268)

### 16.60.150 Transferee's assumption of obligation to correct noncomplying conditions.

When residential housing has been inspected in the manner provided for by this chapter and been found to be not in compliance with the energy conservation standards adopted by this chapter, the owner of such housing, notwithstanding any provisions of this chapter to the contrary, may nevertheless sell, exchange or otherwise transfer the housing without a certification that the housing complies with such energy conservation standards, if prior to such transfer, the transferee enters into an agreement with the city, in a form approved by the city attorney, by which the transferee acknowledges the existence of the noncomplying conditions and agrees to correct same within 180 days following the date such transfer occurs, or such later date as may be approved by the building official for good cause shown.

(Ord. 1843 §1 (part))

#### 16.60.160 Violations.

A violation of the provisions of this chapter shall constitute an infraction which is punishable by a fine in an amount provided for by Section 1505 of the Charter of the City of Chico.

(Ord. 1843 §1 (part), Ord. 2136 §8)

### **CITY OF CHICO**

#### **BUILDING DIVISION**

### RESIDENTIAL ENERGY CONSERVATION ORDINANCE (RECO)

### **ENERGY RETROFIT REQUIREMENTS**

The following items are required if the sale is not exempt from the ordinance:

- A. Ceiling Insulation Minimum =  $\frac{R-19}{R-30}$ 
  - Exception: (1) Does not apply if the attic headroom is less than thirty (30) inches at the peak of the roof.
- B. ADD: Under-floor insulation (minimum R-13).

**Exception: Lack of under-floor Clearance** 

- C. Water Heater External Insulation Blankets Minimum = R-6
  - **Exceptions:** (1) Internal blanker of R-12
    - (2) Where the water heater is located less than two (2) inches from an adjacent wall
- D. ADD: Insulate hot & cold water lines at water heater (R-3 for 5 feet).
- E. Low Flow Restrictors in Showers (Maximum Flow 3 gpm)
  - **Exceptions:** (1) Where existing flow is less than three (3) gallons per minute
    - (2) Where the shower head and shower arm are of a ball type which is connected in the wall
- F. ADD: Low-flow sink faucets (2.75 minimum gpm) and/or screw-on aerators.
- G. ADD: Low-flow toilets (1.6 gallons/flush).
- H. Weather Strip Exterior Doors

ADD: Permanently affixed weather-stripping and door sweeps or door shoes.

<u>Seal all Major Cracks, Joints or Other Openings in a Building Exterior or Portion of a Building Exposed to Unheated or Uncooled Areas</u>

#### RECOMMENDED ADDITIONAL REQUIREMENTS:

- **I.** Seal duct joints: Add duct insulation to minimum R-4.2.
- **J.** Setback thermostat on all applicable heating and/or cooling systems.

### **DISCUSSION POINTS:**

- HERS Rating of HVAC systems or whole house evaluations ... cost limitations?
- Re-inspect at <u>ALL</u> re-sales. Current system: one inspection is good for life of the structure.
- Increase cost limitation (currently \$500.00 per CMC Section 16.60.110) or increase amount by a percentage of the sales price.
- What are/should the requirements be for Title companies to not close escrow until the documentation is approved. Currently, there is no way to enforce the requirement and Realtors use the honor system.

ENERGY/RESALE ORDINANCE EXEMPTIONS appear on the reverse side of this page. ENERGY/RESALE ORDINANCE EXEMPTIONS\*\*

- 1. Duplex and single family dwellings constructed on or after June 1, 1983.
  - CHANGE DATE TO BUILT PRIOR TO 1990
- 2. Multiple family dwellings (three or more units) constructed on or after June 1, 1984.
  - CHANGE DATE TO BUILT PRIOR TO 1991
- 3. Existing housing previously certified as in compliance with City Ordinance No 1480, adopted by Council on October 5, 1982. Revoke this exception ... existing housing must be re-certified at every sale.
- 4. Court-ordered transfers of property.
- 5. Default transfers to a mortgage.
- 6. Sales or transfers from one co-owner to one or more other co-owners. Revoke this exception
- 7. Sales or transfers to a spouse or to a person or persons in the lineal line of direct family.
- 8. Sales or transfers resulting from a decree or dissolution of marriage or a decree of legal separation.
- 9. Sales to or from any government entity.
- \*\* For complete exemption criteria, see Chapter 16.60 of the City of Chico Municipal Code.



### **Sustainability Task Force Agenda Staff Report**

DATE: July 2, 2009

TO: SUSTAINABILITY TASK FORCE

FROM: MANAGEMENT ANALYST LINDA HERMAN, 896-7241

RE: CONSIDERATION OF SUPPORTING THE CALIFORNIA PRODUCT STEWARDSHIP COUNCIL'S

Meeting Date: 7/6/09

PRODUCER RESPONSIBILITY CAMPAIGN.

#### **RECOMMENDATION:**

The Sustainability Task Force is requested to provide recommendations on whether to forward supporting the California Product Stewardship Council's efforts to the City Council for consideration.

#### **BACKGROUND:**

The United States Environmental Protection Agency (EPA) estimates that approximately 75 percent of today's waste stream comes from manufactured products – from everyday household items such as home televisions, cell phones, personal computers, fluorescent lights and household batteries to household hazardous waste products like paint and pesticides. Electronics contain lead, cadmium, and other toxic heavy metals that pose a threat to public health and the environment when improperly disposed. Other products also contain toxic constituents, such as the mercury contained in fluorescent lights, or are packaged with problematic materials and use excessive packaging. Still other products, such as hypodermic needles and other "Sharps" can injure the public and sanitation workers when improperly disposed.

In response to legitimate environmental concerns about the landfilling of such products, California has enacted landfill bans of these materials. In 2006, "Universal Waste" (fluorescent lights, household batteries, electronics, mercury switches, etc.) were banned from landfilling. In 2008, "Sharps" were banned from landfilling. However well-intended, the disposal bans are, the responsibility for enforcing these bans has been placed on cash-strapped local governments, which lack the funding, capacity or resources to properly manage the growing list of products banned from landfills. This is an unfunded mandate and the result is a "ban without a plan."

Under today's waste management system, the responsibility for managing the end-of-life of these product wastes falls on local governments. Many products today are actually designed for disposal, rather than reuse or recycling. It is both the toxicity of the waste stream and the staggering volume of waste that is of concern to local governments. Ratepayers and taxpayers are financing costly collection infrastructures and programs which, in effect, amount to a subsidy for the product manufacturers, who take little or no responsibility for the end-of-life management of the products they design, sell and profit from – with few exceptions. A brochure on why local governments should be concerned about Product Stewardship is attached as Exhibit A for the Task Force's information.

### **DISCUSSION:**

There is widespread support for Extended Producer Responsibility (EPR). In January 2008, the California Integrated Waste Management Board (CIWMB) adopted EPR "framework" legislation as a strategic goal. The framework concept would allow multiple products to be regulated under one law, as opposed to the costly and time-consuming product-by-product legislation of the past. The California Product Stewardship Council (CPSC) is a non-profit organization of California local governments and other partners that has launched a campaign to urge the CIWMB to continue to implement the EPR framework, and to encourage all manufacturers to share in the responsibility for eliminating waste and toxic materials from the goods and products they produce.

As of May 13, 2009, 27 Counties, and 46 cities, and 22 local government associations have supported CPSC's efforts by either signing the CPSC Pledge to promote EPR, by passing resolutions supporting EPR in their local jurisdictions (see attached Exhibit B). Both Butte County and the Town of Paradise have passed resolutions supporting these efforts.

#### ATTACHMENTS:

Exhibit A: CPSC Local Government Producer Brochure

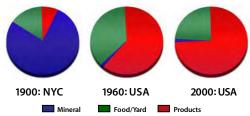
Exhibit B: CPSC Membership

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# Waste Generation & Recovery Are Changing

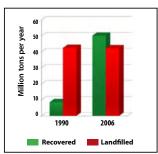
A century ago, when local governments assumed responsibility for solid waste, it consisted mostly of coal ash left over from heating and cooking. The rest was mainly food, with a small amount of simple manufactured products like paper and glass.

# Today, manufactured products and associated packaging make up 75% of what we discard.



Since the 1980s, California's reuse, recycling and composting industries have grown explosively. Thousands of California businesses are recycling valuable resources back into productive commerce, so that today, about half of the materials discarded in California get recovered. Though this is a huge achievement, due to population growth and the expanding quantity of packaging and product waste, the amount of waste going to landfills isn't reducing — in fact...

# The volume of waste disposed in landfills has remained about the same as in 1990: 42 million tons.



To further reduce product and packaging waste and toxicity, we must further motivate designers, manufacturers and brand owners to design for increasing recycling and recovery. Product stewardship programs have already been implemented in Europe and Canada with many of the same companies now selling products in California, so we know it can be done here as well.

Join Us! Help Make

# Producer Responsibility

# a Reality in California

- 1 Pass resolutions, ordinances, plans and policies
  Use model producer responsibility plans and
  policies from our website.
- 2 Advocate for statewide legislation
  Add producer responsibility to whatever advocacy
  efforts your jurisdiction is pursuing in Sacramento.
- Join CPSC

  Participate in CPSC and help us speak with a unified voice in California. There IS power in numbers.



P.O. Box 216381 Sacramento, CA 95821 www.CalPSC.org

Heidi Sanborn, Executive Director Phone: 916-480-9010 Email: info@CalPSC.org

Funded by a grant from the California Integrated Waste Management Board. Zero Waste — You Make It Happen.

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# **Why Local Governments Want**

# **Product Stewardship**

**A Better Way** 





Most of the companies that make this stuff aren't paying a nickel to recycle it.

In fact, they designed it for disposal—
and you're picking up the tab!

We think it's time to change that.



# The Problem: \$100,000,000



The cost of collecting and recycling or disposing of hazardous products easily exceeds \$100 million a vear in California.

### The List of Products Banned from Landfilling is Long

Batteries, sharps, electric switches, cell phones, electronic equipment, computer monitors, aerosol cans, fluorescent light tubes, compact fluorescent lights, thermometers, treated lumber... and pharmaceuticals are expected to be banned soon.

Disposal bans without plans do not work:

- · Bans DO NOT reduce volume, toxicity or illegal disposal of the wastes.
- · Bans DO NOT create safe and convenient collection and recycling options.
- Bans DO put the burden of enforcement on local governments.
- Bans DO put the burden of cost on ratepayers and taxpayers.

### Disposal Bans Are an Unfunded Mandate

Local governments try to enforce the state mandated bans, but they don't have the money to do it.

It's the classic unfunded mandate—a government directive without the resources to implement it. The intentions of the bans are good, but the responsibility is misplaced on local governments.

# The Solution: **Producer Responsibility**

### Two Systems. No Communication.

We currently operate under two separate systems. The front-end system designs, manufactures and sells products to us and then effectively rides off into the sunset. The back-end system is engaged once the consumer is done with those products.

Local governments become financially responsible for managing the disposal of these private goods, many of which are toxic and disposable by design.

These two systems don't communicate with each other. Manufacturers don't have to design products to be nontoxic or recyclable, or design systems to safely dispose of them at the end of their usefulness. And local governments don't have any input into how toxic or durable the products are; but they still get stuck with the disposal bill.

#### Today's Linear Product Flow — Production to Disposal



### A Better Way: Producer Responsibility

**Extended Producer Responsibility (EPR),** or Product Stewardship, means whoever designs,

produces, sells or uses a product takes responsibility for minimizing its environmental impact through all stages of the product's life cycle. And the producer, having the greatest ability to minimize impacts, has the most responsibility.

When government makes stewardship programs mandatory, it levels the playing field for businesses so they can compete in a fair marketplace.

Today, products are regulated one category at a time (e-waste, pesticides, etc.). A better approach, an "EPR framework," provides one law that adopts EPR principles for all products and gives regulators the power to implement rules that make sense for each product.

### **Implement Producer Responsibility**

Manufactured product discards should be managed by producers or their agents. Local governments and private recyclers could then focus more on fostering opportunities to expand reuse, composting and recovery of recyclable materials and other beneficial uses.

#### Tomorrow's "Cradle to Cradle" System



Tomorrow's system will engage producers to drive green design through every stage in a product's life cycle: from "cradle to cradle." Everyone will share in the responsibility for the products they create, sell, use and discard.

#### The Producer Responsibility movement is growing:

- Local governments throughout the U.S. are beginning to implement EPR programs and policies.
- Some manufacturers and retailers in the U.S. have started to implement EPR. In fact, many manufacturers are already practicing EPR in other countries... the same manufacturers that aren't doina it here!
- California Retailers Association, Clean Seas Coalition, California Stormwater Quality Association, California Council of Directors of Environmental Health, California Resource Recovery Association and many more support EPR.

# **EPR Addresses Multiple Issues**

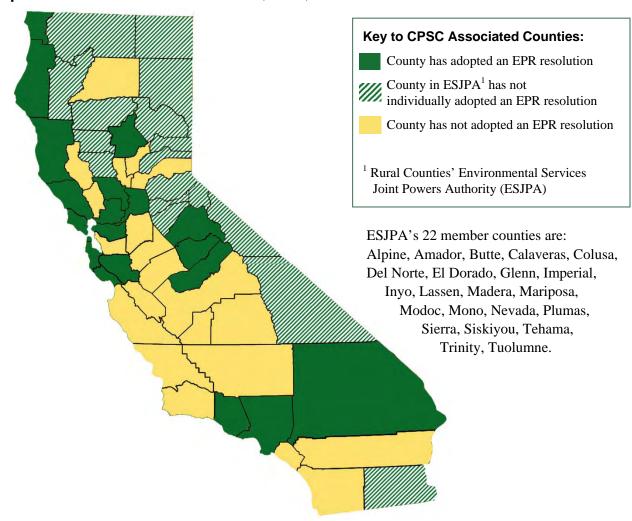
- Solid waste
- Stormwater · Ocean litter
- Wastewater Public health

- Hazardous waste · Resource depletion
- Climate change
- Energy usage



### Who is CPSC?

### **Map of CPSC Associated Counties** (5/13/09)



### Local government agencies participating in CPSC

# Counties: Board of Supervisors or Countywide Agency\* (27)

- Alameda
- Amador\*
- Butte
- Contra Costa\*
- Del Norte\*
- Humboldt\*
- Los Angeles

- Madera
- Marin\*
- Mariposa
- Mendocino\*
- Monterey\*
- Napa\*
- Sacramento

- San Bernardino
- San Francisco
- San Joaquin
- San Mateo
- Santa Barbara
- Santa Clara
- Santa Cruz

- Solano
- Sonoma\*
- Tehama
- Tuolumne
- Ventura
- Yolo

### City Councils (46)

- Amador City
- Arvin
- Burbank
- Calabasas
- Chula Vista
- Cupertino
- Diamond Bar
- Dixon
- Dublin
- El Cerrito
- Elk Grove
- Folsom

- Folsom
- Fresno
- Indian Wells
- Isleton
- La Verne
- Lemon Grove
- Los Altos Hills
- Los Angeles
- Los Gatos
- Monrovia
- Monte Sereno
- Morgan Hill

- Mountain View
- Nevada City
- Oakland
- Palo Alto
- Pasadena
- Petaluma
- Rohnert Park
- Rio Vista
- Sacramento
- San Dimas
- San Juan
- Capistrano

- San Joaquin
- San Jose
- Santa Cruz
- Santa Monica
- Sierra Madre
- Sunnyvale
- Torrance
- Union City
- Vacaville
- Vernon
- West Hollywood

### **Local Government Associations (22)**

- Association of Bay Area Governments (ABAG)
  - o Bay Area Hazardous Waste Management Facility Allocation Committee
  - o San Francisco Estuary Project
- Bay Area Clean Water Agencies
- Bay Area Stormwater Management Agencies
- California Council of Directors of Environmental Health (CCDEH)
- California State Association of Counties
- California Stormwater Quality Association
- Contra Costa Clean Water Program
- East Bay Municipal Utility DistrictFresno Council of Governments
- League of California Cities
- Los Angeles County Integrated Waste Management Task Force

- Los Angeles County Sanitation District
- Mojave Desert and Mountain Recycling Authority
- Rural Counties' Environmental Services Joint Powers Authority (ESJPA)
- Sacramento Business Environmental Resource Center
- Sacramento County Department of Water Resources
- Sacramento Regional County Sanitation District
- Santa Clara Valley, CLEAN South Bay
- South Bayside Waste Management Authority
- Southern California Association of Governments
- Tamalpais Community Service District
- West Valley Clean Water (Campbell, Los Gatos, Monte Sereno, Saratoga)

# Partners (38)

- A Green Plan
- Allied Waste, Daly City
- California Resource Connections Inc.
- Clean Water Actions
- California Resource Recovery Association (CRRA)
- CR&R Waste and Recycling Services
- Ecology Action
- Edgar and Associates
- Environmental Defense Fund
- Executive Communications
- General Environmental Management, Inc.
- Gill's Onions

- Going Green Radio Program
- Grassroots Recycling Network
- Green Party of Los Angeles County
- Greenleaf Project Management
- I2I Industry to Innovation
- Keep California Beautiful
- Long Beach Coalition for a Safe Environment
- Main Street Moms
- Marin Sanitary Service
- North Bay Corporation
- Pacific Recycling Solutions
- Peninsula Packaging
- ReUse Arizona

- Reverse Logistics AssociationSierra Club Bay Area
- Sierra Club Napa
- Sierra erab Trapa
- Sierra Club Solano
- Sierra Club Zero Waste Committee
- SLV Recycling Redemption Centers
- Takayama Consulting
- TDC Environmental
- Teleosis Institute
- Total Recycling Associates
- The Watershed Project
- Waste Management of Orange County
- YCC International



# **Extended Producer Responsibility**

A collaborative approach for business flexibility and streamlined government to reduce, reuse, and recycle. Protecting our natural resources and environment.

### WHAT IS EPR?

Extended Producer Responsibility (EPR) is a means for California to go beyond everyday recycling and waste reduction by creating a connection between a product's creation and its eventual disposal. This important economic link provides producers with an incentive to give greater thought to how they manufacture and package products, taking responsibility for their products from beginning to end to decrease the volume of products and packaging that ends up in landfills.

#### WHY DO WE NEED EPR?

Managing waste—especially products that are hazardous and toxic—is very costly for local governments. California's local governments and ratepayers, spend upwards of \$500 million annually to manage products banned from landfills as well as those headed to a landfill, buried forever!

Waste generation over the years has grown with population and economic growth. While California has made enormous advances in recycling, today we throw away about the same amount of trash as 20 years ago! Innovative product design and packaging will lead to less waste generation and more easily recycled products that support a healthy environment and alleviate costs.

# WHAT DOES THIS MEAN FOR CALIFORNIA?

### Supports California's economy

EPR increases recycling. Recycling a ton of "waste" has twice the economic impact of burying it in the ground! Each year, recycling provides an average of 85,000 jobs, \$4 billion in salaries and wages, and \$10 billion in goods and services.

#### Streamlines government

California's framework approach, where producers lead the process, addresses EPR with low government administrative costs. Additionally, the Statewide program relieves businesses from having to comply with a varying patchwork of statutes and local government ordinances that are implemented in response to rising disposal costs.

#### Reaps environmental benefits

Changing product and packaging design and using materials more effectively results in:

- Increased recycling
- Reduced greenhouse gas and other air emissions
- Reduced toxic product components
- Increased energy efficiency

# Linda Herman - More additions/amendments suggested for sustainability indicators and climate action plan

**From:** "Jon Luvaas" <jonluvaas@gmail.com> **To:** "Linda Herman" <lherman@ci.chico.ca.us>

**Date:** 6/10/2009 5:13 PM

**Subject:** More additions/amendments suggested for sustainability indicators and climate action plan

Hi Linda,

I've finally had time to thoroughly review the task force's long draft list of indicator ideas and compared them with your condensed versions of measurable indicators and climate action plan ideas, as presented at last week's meeting. I'm sorry to be so late with this, but only now got to catch a breath and catch up.

I see some items from the task force's long list that weren't included in the latest cut, but seem very useful; so I'll suggest some additions. I'll also suggest ways to better refine some of what I and others mentioned last week, which may make them more useful. I'll understand if some of these suggestions seem too difficult to measure or are not as useful as I think. Also, some items I mention for one list may be more appropriate for the other, or they might work on both lists.

This is quite a bit more material to incorporate where it's useful, though most of it is on our Exhibit B and not completely new. Please let me know if there's anything I can do to help integrate it into your lists. Or maybe we can meet to brainstorm how best to use this, if you prefer.

Many, many thanks for all your great work on all of this. I certainly trust your judgment to be complete and to pick what will work best.

Jon

#### **SUSTAINABILITY INDICATORS**:

Goal 1: Planned and Balanced Growth and Conservation: Since this is a really important one, a number of additions seem necessary.

- In addition to density per land use designation, track the cumulative total of housing units located downtown and on transit corridors less politically charged than density, while assessing how well we're meeting our infill and transit access goals.
- I liked someone's suggestion that we include in both Goal 1 and Goal 6 proximity indicators for the number of housing units within e.g. ¼ or ½ mile of stores, parks, schools, and community gardens. But, additionally or instead, it might be even more useful to calculate the <u>average</u> citywide household distance from stores, parks, schools, and community gardens.
- Also include vehicle miles traveled citywide and per capita.
- And track the cumulative total of auto travel lane miles, both citywide and per capita, to measure of how efficiently (or inefficiently) our land and infrastructure are utilized.
- Track both citywide and per capita sewer line miles for the same reason. Having these numbers will also help to assess the cost/benefit and fiscal and resource sustainability of future street or sewer system expansion proposals.
- Finally, ag land preservation seems like a crucial component of balanced growth and conservation. To assess this, I suggest tracking the total of all acreage preserved as public community gardens, dedicated or zoned for agricultural conservation, or in urban buffer areas (between development and commercial ag) if it is dedicated to small scale agriculture.

### Goal 2: Healthy Environment with a Reduced Ecological Footprint:

- It was suggested that most of the indicators listed here also be shown both citywide and per capita.
- Indicator #1 waste: Toxic material use and disposal needs to be measured somehow, at least for the City, but preferably citywide.

- Indicator #2 has a typo: It says waste disposed on line 2, rather than water used.
- Indicator #3 (safe drinking water): Since many health experts assert that current drinking water standards are not adequately stringent, measuring our compliance with current standards may not assure sustainably safe water. It seems more useful to establish a measured baseline for the most critical toxins, particulates, etc., and chart new measurements over time, showing absolute amounts of each on a graph, but also including a straight line showing existing standards. This would show our absolute progress and a comparison with the standards. It would also allow insertion of a different line for the standards later, if they change.
- Drinking water quantity is also essential to know, which can be best tracked from Cal Water records of domestic well water depth. If it keeps going down, we're in trouble.
- Stream water quality should also be measured, since it's probably the best indicator of stream health and the quality of urban runoff. Streamwater quality over time could possibly be assessed via the periodic testing already done at 1 Mile rec. area, or perhaps Fish and Game or some other agency measures quality downstream from town.
- Since the quantity and quality of urban runoff is mainly affected by the amount of stormwater runoff from impervious surfaces drained through the storm drain system, we would reduce toxic runoff and flooding potential by reducing the percentage of impervious surfaces. Perhaps we could track the percentage of pervious surfaces installed in new development and in improvements of existing streets and parking lots.
- Indicator #4 (air pollutant levels) should be charted like air quality by showing both absolute amounts of critical toxins/particulates and number of standards violations.
- Tracking citywide greenhouse gas pollutant totals (CO2 equivalents) as an indicator here seems essential, as well as through our CAP. Tracking the ongoing total over time would closely coordinate our broader sustainability tracking with the policies and programs of the CAP.
- Add: Measure the size and cleanup progress of toxic groundwater plumes.
- Add vehicle miles traveled per capita and citywide as an indicator under Goal 2, as well as Goal 1.
- Local food security, production and purchases seem like important indicators for goals 2, 3, and/or 6, but may be difficult to measure. But a measure of relative progress in that direction would be someone's suggestion to track the number of farmers market vendor permits issued annually.
- The number of community gardens was also suggested for goals 2, 3, and/or 6, but it would be especially useful to track total <u>acreage</u> of community gardens citywide.
- The number of CSA (community supported agriculture) subscribers would be another good measure of local food consumption and is readily available.
- Finally, I suggested tracking the average square footage of residential units built each year as a concrete measure of natural resource consumption, at least for housing. It might also turn out to be an effective indicator of housing affordability and/or response to the needs of smaller households.

# Goal 3: Strong Local Economy with Diversified Employment Base and Reliance on Local Business:

Indicator 3: Total receipts and license taxes from all businesses may be a good indicator, but the multiplier effect of small businesses on the economy is greatest since they circulate profits locally. So it may be especially helpful to instead (or additionally) measure the receipts and license taxes of small and/or locally owned businesses.

#### **Goal 4: Resource Protection and Enhancement:**

- Add: Stormwater runoff: Measure the amount of stormwater from impervious surfaces in new development which is retained on-site for percolation, instead of captured in storm drains and dumped (with its pollutant load) into the creeks. Engineering does these calcs when determining storm drain needs and capacity, so they should be able to approximate how much the storm drain load from new development is reduced when on site swales, pervious paving, or other detention are used. This would give us some measure of reductions in infrastructure costs, reduced creek pollution and flooding potential, and shallow groundwater recharge.
- Add: Acreage of agricultural preserves and acreage of community gardens within and adjacent to the urban area as a measure of ag land preservation and local food production.

#### **Goal 5: Enhance Chico's Character and Identity:**

- Downtown commercial square footage vacancy would be a useful indicator

### **Goal 6: Livable Neighborhoods as Community Foundation**:

- Indicator 3 arts and culture: In addition to city art funding, we might be able to measure this by total annual attendance at Laxson events and stage theatres, if those figures are available and not private.
- Added indicators: Measure percentage of residences within 1/4 mile of a park
- Add: acreage of community gardens

#### **Goal 7: Development Patterns that Offer Alternatives to Automobile Use:**

- Please add an indicator: Measure the number of children walking or biking to school
- Add: number of drive through facilities
- For indicator #4 to be useful, we may need to start requiring that bike dealers issue bike licenses and send registrations and fees to the city, much like auto dealers do with state reporting. Dealers might be incentivized by allowing them to collect and keep \$5 per tag to cover their expense. It would take a Council ordinance or resolution to accomplish this. We could add that to our sustainability policy recommendations.

Goal 9: Social Equity, Services and Systems for All Chico Residents: The STF recommends that this be renamed more broadly in the General Plan, as discussed at the meeting: to something like Community Health and Well-Being

- Useful additional indicators suggested here related to housing would include percentage of home ownership, percentage of income paid for mortgage payments or rent, homeless numbers, number of deed restricted or otherwise permanently assured affordable housing units
- Education indicators could include college graduate retention
- Health indicators are needed, which could include total number and occupancy rate of hospital beds; birth weight and infant mortality; deaths per capita from heart disease, respiratory disease, and diabetes
- Civic engagement indicators indicate hope and public caring, which could include voter registration and voting as a percentage of the adult population, the total number of applicants for city boards and commissions every other year, and volunteer hours through City and/or citywide nonprofit programs.
- For incomes, it's useful to track median or average income and to compare it with the consumer price index or gross domestic product, etc. for perspective.

\* \* \* \* \* \*

#### **CLIMATE ACTION PLAN** – EXHIBIT A

#### PAGE 1: AIR AND ENERGY EFFICIENCY

Change number of EPA certified wood stoves to: Non-EPA stoves and fireplaces removed or replaced with certified stoves. And include this as a measured item.

Energy efficiency building permits- track number citywide

Energy upgrades at time of sale – track citywide

And before energy upgrades at time of sale, add: Energy audits and buyer disclosures at time of sale

Require new construction and major remodels/additions to wire for photovoltaic systems.

Require builders of presold homes to offer photovoltaic and solar or on-demand hot water systems to potential buyers (state law in 2012)

Number of businesses providing or servicing renewable energy production systems

Number of low emission, electric, and renewable energy vehicles licensed citywide and in the city fleet Install and record the number of public electric vehicle recharge stations citywide

PAGE 2:

LIGHTING

Distribute free CFL bulbs and fixtures - should be measured and tracked

Lights out at night policy - measure percentage of licensed businesses reporting adopting policy

LED street lights – could record % of lights citywide

LED traffic signals - % citywide

Non-LED efficient street lights - % citywide

Add: Reduced hours of street light illumination - track % reduction citywide

PROMOTION AND EDUCATION: ADOPT (not just promote) a local green business program

WATER:

Add a stronger municipal water conservation policy – we have one now, but not very strong yet. Perhaps we need something like: Convert landscape and turf to drought tolerance.

Community use of low-maintenance landscaping is fine, but needs to be drought tolerant landscaping

Add for community and government: Avoid lawns for passive landscaping

Add for government: Facilitate greywater use citywide

Add for community and government: Require development to retain stormwater on site for percolation or irrigation storage

Add for both: Utilize on-demand water heaters to reduce water use (also goes with energy efficiency)

Community: Require on-demand water heaters in new construction (

#### PAGE 3:

#### **ENERGY GENERATION**

Community: Add: Require wiring for photovoltaic panels in construction/remodels Community: Add: Require offer of photovoltaic and solar water in new construction

#### PAGE 4: nothing to add

#### PAGE 5:

#### WASTE:

Methane flaring: Already done, so change to Capture landfill methane for energy production

Add: Escalate rates for high volumes/weights to provide free recycling collection

Add: Community: Incentivize multi-family recycling and measure % of trash recycled in multi-family housing

Add: Install recycling bins wherever public trash cans are located

Add: All public entities should have a zero waste, zero toxins and zero e-waste policy, with a phaseout over time.

But how would we measure progress? Requiring sales reports would help, but that's a hassle for business.

Perhaps toxic waste or e-waste captured for safe disposal or reuse could be measured.

#### PAGE 6: FORESTRY

Add: Establish/support a volunteer or non-profit tree planting program

\* \* \* \* \* \*

# **EXHIBIT B-1** – ADDING ALL POLICIES AND PROGRAMS TO THE CAP DOES SEEM BEST, EVEN IF NOT MEASURABLE

#### REDUCE GREENHOUSE GAS EMISSIONS

Include fewer stop signs as a way to improve intersection traffic flow

For additional municipal solar panels, include a goal to increase % of solar power, e.g., 10% annually

#### **ENERGY**

ADD: Require HVAC duct pressure testing and sealing for new construction, major remodels, additions, and resale

ADD: Use light, reflective paving surfaces on streets and parking

#### ALTERNATE TRANSPORTATION

Change terminology to non-automobile transportation, since it needs to stop being the alternative

Under bus: Increase head times should be reduce head times, I believe

Also number of bus stops and shelters citywide, maybe bus miles traveled annually

Track city fleet miles traveled?

Track number of city employees residing locally?

#### **EXHIBIT B-2**:

#### WATER QUALITY/QUANTITY

Reduce pollutant runoff isn't very useful, but OK to include. Best done by reducing polluted water runoff Add: Retain stormwater on site for percolation or irrigation and pollutant reduction

Implement stormwater protection measures is too vague and already done, somewhat. Tighten language, or consider it accomplished by on-site retention

Increase bioswales (bottom) should be grouped higher up with on-site retention, etc.

#### SOLID WASTE

Add: Require commercial recycling for cardboard, paper, plastics, metals, green waste

Under increase foodwaste composting, add: Support a foodwaste composting/digestion program

\* \* \* \* \* \* \*

#### **ONGOING CAP GOALS AND MEASURES NEEDED BEYOND 2020**

The CAP should propose ongoing CO2 reduction goals, beyond 2020, to meet the state's 2050 goal of <u>at least</u> an 80% reduction. We have our 2020 goal of 25% below 2005 levels (roughly 30% below current levels), but the State also expects at least an 80% 2050 goal (the U.N. report says it needs to be 90%). To reach that aggressive goal to cut at least another 55% off 2005 levels between 2020 and 2050, we'll surely need interim goals, measurements, and progress/policy/program evaluations all along the way.

Just to reduce levels about 30% from current levels before 2020 will require an average of 3% a year from 2010 to 2020, probably faster during the first few years of picking cheap and easy low hanging fruit, and maybe slowing later as cuts get harder. Then, to cut another 55% between 2020 and 2050, we'll need an average annual cut of 1.833%, 5.5% every 3 years, or 9.2% every 5 years. Realistically, we may need to keep working on about a 3% annual average reduction from now to 2030 to reach the 2050 goal. Alternatively, we could just set 5 or 10 year goals, but shorter time increments and quicker policy and program adjustments will probably be necessary.

As we fine tune the measurable sustainability indicators and specific CAP policies and programs, I propose that we also agendaize discussions about the need for interim CO2 reduction goals, an ongoing indicators and CAP progress tracking program, and periodic City policy and program adjustments to assure that we keep on track toward our goals. Our recommendations about these should play a significant role in the General Plan Sustainability Element, the sustainability indicators, and CAP policies and programs.

The central point of that long article and summary I sent you recently is that we also need a system to <u>assure</u> that every major private and public project proposal is assessed for its effects of on our sustainability and CAP goals, that every project is designed and mitigated to assure that it furthers our goals (instead of impeding them), and that the City regularly reassesses its policies and programs to assure that we're keeping on track toward our goals. According to the experience of other cities, anything short of that kind of aggressive tracking, assessing, and adjusting assures that we won't meet our goals.

Hopefully, the ICLEI materials and assessment tools will help us to do this, as well as drawing on the experience of other cities. I know this is another big step, but it's the one that will get us where we want to go, once our indicators, policies, and programs are in place.