

# **Carpet America Recovery Effort**

**6<sup>th</sup> Annual Conference**

**Clearwater Beach, FL**

**May 5-7, 2008**

# **Emerging Initiatives for Greening California**

- ◆ **Green Chemistry Initiative**
- ◆ **Extended Producer Responsibility Initiative**
- ◆ **Climate Change Initiative**

## **What is Green Chemistry?**

- ◆ **Green Chemistry is a strategy to reduce the use of toxic substances so that they do not harm the public or contaminate the environment.**
- ◆ **It seeks to fundamentally remake the way we make things via the design and manufacture of products with little or no hazardous substances.**

## **New Cradle to Cradle Approach**

- ◆ **Through product design and industrial innovation, produce products that reduce the use of harmful chemicals and generate less emissions and waste**

## **Why is this initiative needed?**

- ◆ **Regulatory efforts focus on emissions and waste**
- ◆ **A focus on design and process leads to better protection**
- ◆ **Knowledge of chemicals in products and their impacts is limited**

## **Why is this initiative needed?**

**(Continued)**

- ◆ **Governments and industry are focusing in this direction**
- ◆ **Companies are finding that Green Chemistry makes economic sense**

## **The Beginning**

- ◆ **April 2007 – Cal/EPA Secretary Adams announced the Green Chemistry Initiative & encouraged all willing participants to contribute their ideas.**
- ◆ **A number of symposia & stakeholders meetings were held.**

## **Phases of Green Chemistry**

- ◆ **During Phase One, from April to December 2007, participants brainstormed more than 800 options.**
- ◆ **These options were compiled into the Phase One report (Emerging Options Report).**

## **Phases of Green Chemistry**

**(Continued)**

- ◆ **Cal EPA has released a compilation of policy options that more than 600 participants submitted during Phase One.**
- ◆ **The Options Report includes the 818 options on ways to reduce the effects of toxic chemicals on people and the environment.**

# Phases of Green Chemistry

(Continued)

- ◆ **Work on Phase Two, which is the analysis of these potential options, has begun.**
- ◆ **Phase Two includes three, concurrent tracks:**
  - **Draft Frameworks**
  - **Key Elements**
  - **Science Advisory Panel**

## **Draft Frameworks**

- ◆ **Draft frameworks are being discussed at public workshops focusing on the following topics:**
  - **Data Collection and Use**
  - **Economic Incentives and Markets**
  - **Statutory and Regulatory Requirements, Enforcement and**
  - **Research and Technology**

## **Key Elements**

- ◆ **Key Elements** recurred throughout the array of possible options presented in Phase One.
- ◆ **The Key Elements** are the building blocks for a successful California Green Chemistry program.
- ◆ **Interagency teams** are formed within state government to begin development of plans for the Key Elements.

## **Key Elements** (Continued)

- ◆ **Teams are to address:**
  - **Disseminate information on toxic chemicals and empower consumers to make informed choices.**
  - **Account for chemical toxicity and impacts in state procurement decisions.**
  - **Train a new generation of scientists and engineers.**

## **Key Elements** (Continued)

- **Include Green Chemistry principles in an Environmental Education Initiative.**
- **Strengthen consumer protection laws.**
- **Expand California's pollution prevention program.**

## **Science Advisory Panel**

- ◆ **To engage the scientific community, a Green Chemistry Science Advisory Panel consisting of 23 of the nation's leading scientists and engineers have been assembled.**
- ◆ **The panel is a major asset to the program as it will guide the GCI on scientific matters and provide the technical basis.**

## **Timeline**

- ◆ **Phase 1 - List of Options presented to Cal / EPA Secretary Linda Adams mid January, 2008**
- ◆ **Phase 2- Policy recommendations to Secretary by July 1, 2008**

## **Extended Producer Responsibility Initiative**

- ◆ **IWMB recognized the need for State policy, using an Extended Producer Responsibility (EPR) Framework approach, to effectively reduce the cradle-to-cradle impacts of products and their packaging.**

# **Extended Producer Responsibility Initiative** (Continued)

- ◆ **This Framework Approach would provide a comprehensive, yet flexible method for managing products that have significant impacts on the environment and serve as an alternative to the current piecemeal approach with many different laws and methods.**

# **Extended Producer Responsibility Initiative** (Continued)

- ◆ **IWMB is seeking statutory authority to implement EPR.**
- ◆ **EPR will guide discussion and development of product stewardship programs in the State.**

# **Extended Producer Responsibility Initiative** (Continued)

- ◆ **These product stewardship programs would not preclude the implementation or expansion of existing programs, nor would it preclude consideration of other approaches to end-of-life product management (such as for e-waste).**

## **Extended Producer Responsibility Initiative** (Continued)

- ◆ **The goals of the EPR Framework, and any product stewardship programs that would be implemented under it, are to:**
  - **Address all materials in the waste stream, either in terms of volumetric or toxic impacts in landfills, and where practical, with consideration of life-cycle impacts.**

# **Extended Producer Responsibility Initiative** (Continued)

- **Advance green product design and the waste management hierarchy of source reduction and reuse, as well as proper collection and recycling where needed.**

# **Extended Producer Responsibility Initiative** (Continued)

- ◆ **The EPR would provide the Board with authority to:**
  - **Establish product selection procedures and selecting product categories;**
  - **Specifying enforcement mechanisms such as penalty procedures and provisions for non-compliance.**

# **Extended Producer Responsibility Initiative** (Continued)

- ◆ **Whether established legislatively or voluntarily, an EPR approach to a specific product or product category places primary responsibility on the producers of that product to design and implement a program to achieve specified goals.**

## **Climate Change Initiative**

- ◆ **Executive Order Established Statewide GHG Reduction Targets:**
  - **By 2010, Reduce to 2000 Emission Levels**
  - **By 2020, Reduce to 1990 Emission Levels**
  - **By 2050, reduce to 80% below 1990 levels**

## **Climate Change Initiative** (Continued)

- ◆ **Achieve 50% statewide recycling, reduce GHG emissions associated with energy-intensive material extraction and production by increasing recovery of recyclables.**
- ◆ **Zero Waste / High recycling, increase recovery of recyclable materials from landfills and create marketable products from organic materials.**

## **Climate Change Initiative** (Continued)

- ◆ **Capture methane from landfills via gas recovery systems.**

## What are Greenhouse Gases?

◆ Carbon dioxide	(CO <sub>2</sub> )	1
◆ Methane	(CH <sub>4</sub> )	23
◆ Nitrous oxide	(N <sub>2</sub> O)	296
◆ Hydrofluorocarbons	(HFCs)	120-12,000
◆ Carbon tetrafluoride	(CF <sub>4</sub> )	5,700
◆ Hexafluoroethane	(C <sub>2</sub> F <sub>6</sub> )	11,900
◆ Perfluorobutane	(C <sub>4</sub> F <sub>10</sub> )	8,600
◆ Perfluorohexane	(C <sub>6</sub> F <sub>14</sub> )	9,000
◆ Sulfur hexafluoride	(SF <sub>6</sub> )	22,200

## **Current Status**

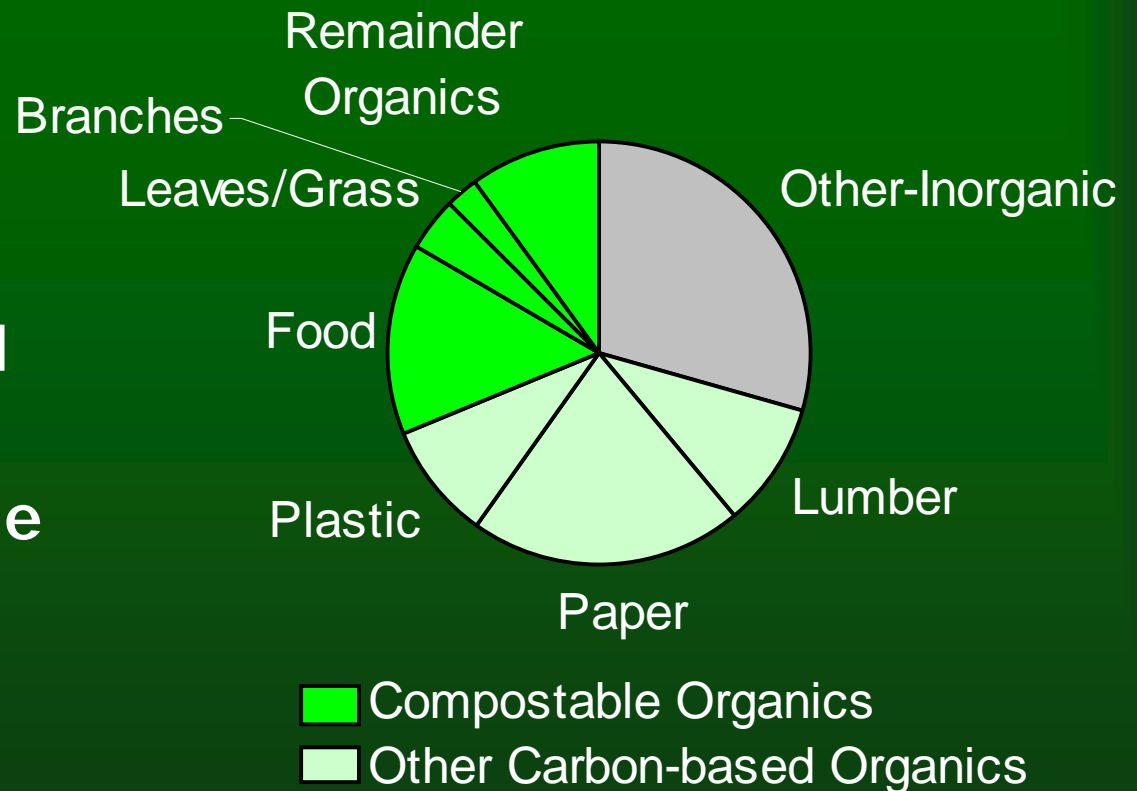
**What is the current status of waste diversion in California?**

## **California Solid Waste Stream**

- ◆ **California generates 78 Million tons annually**
- ◆ **Nearly 1/2 is diverted**
- ◆ **Over 40 Million tons are disposed in landfills every year**
- ◆ **Over 150 landfills**

# Waste Stream Characterization

- ◆ 40 Million tons disposed
- ◆ 70% Carbon-based organics
- ◆ 30% is compostable organics
- ◆ 21% is paper
- ◆ 15% is food



## **Programs that Encourage Diversion**

- ◆ **State Agency Buy Recycled Campaign (SABRC)**
- ◆ **Environmentally Preferable Purchasing (EPP)**
- ◆ **Recycling Market Development Zones (RMDZ)**
- ◆ **Waste Reduction Awards Program (WRAP)**



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