

# Green Chemistry Initiative

*LA County Metropolitan Transportation Authority  
Sustainability Summit and Spring Green Fair*

*Yolanda Garza, Acting Chief, Public Participation,  
DTSC*

May 6, 2009

# *What is Green Chemistry?*

- *Cradle to Cradle*

New approach to environmental protection

- *Benign by Design*

Making products & processes safe from the design stage

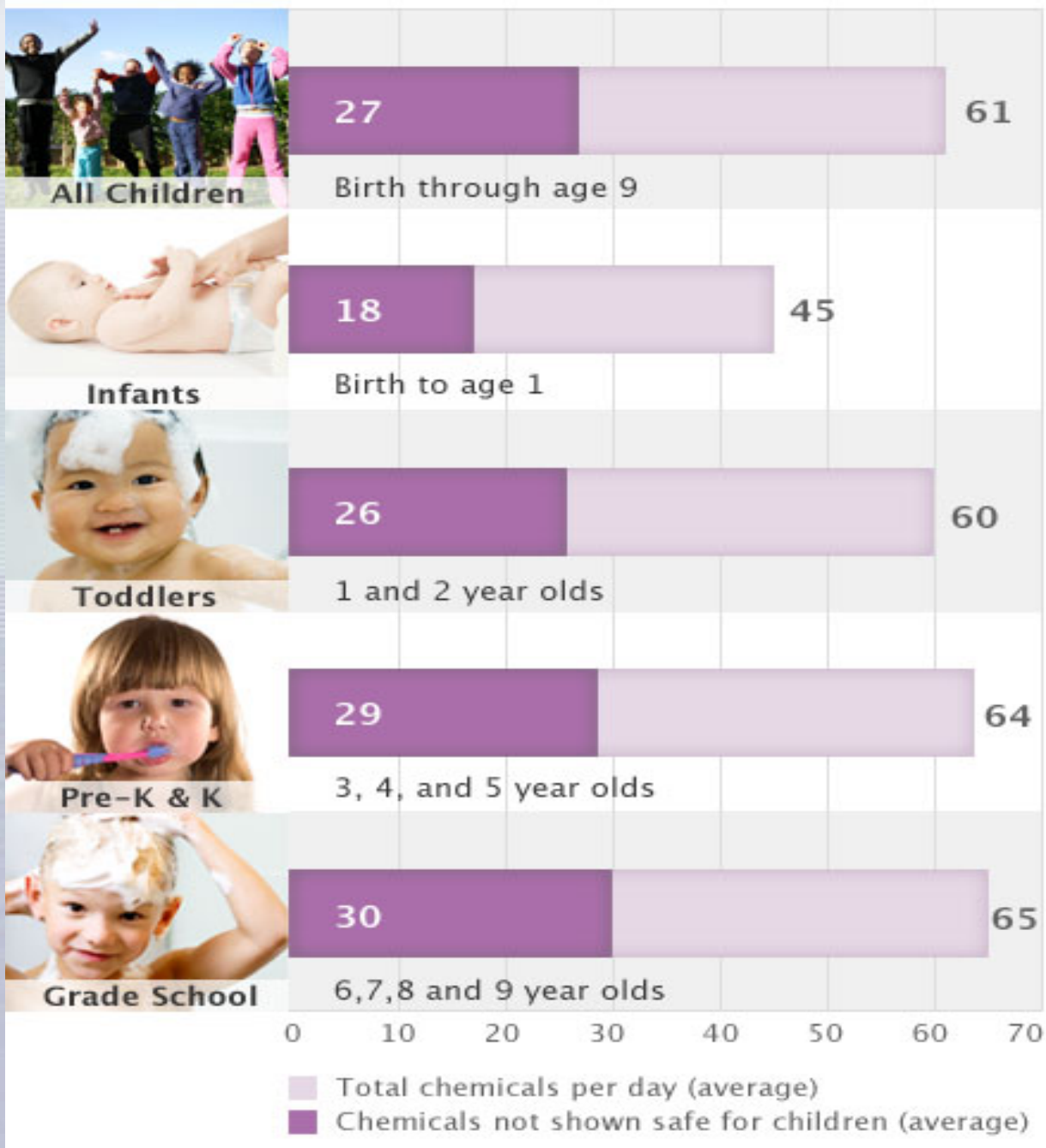


# *Opportunity*

- Shape global debate on chemicals and products
- Restore California's leadership in innovation and economic growth
- Grow share of multi-trillion dollar global chemical and consumer products market

# *The Challenges*

- Toxics in consumer products
- Information lacking for businesses and consumers
- Existing cradle-to-grave framework is inadequate
- Little control to influence design of products made overseas



# *Childhood Toxics Exposure from Products*

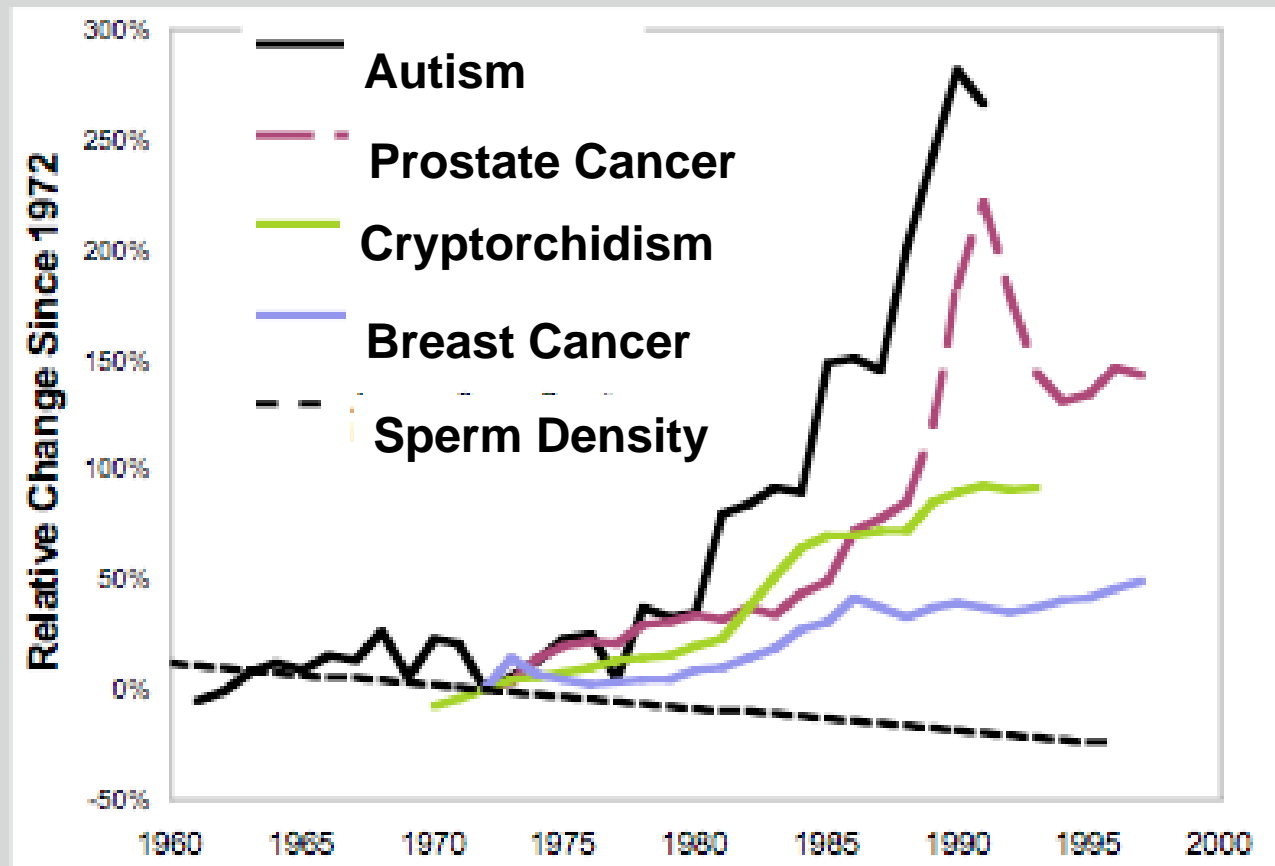


# Public Health Impacts

GROWING UP  
TOXIC  
Chemical  
Exposures and  
Increases in  
Developmental  
Disease

Travis Madsen,  
Yana Kucher  
and Teri Olle  
ENVIRONMENT  
CALIFORNIA  
RESEARCH AND  
POLICY  
CENTER June  
2004

Figure 2: Relative Increase in Disease Incidence Rates Over the Last 40 Years



# *Reduce Chemicals of Concern in Marine Debris*



# *Chemical-by-Chemical Bans – A piecemeal approach*

- **Ban** on lead in jewelry
- **Ban** on toxics in packaging
- **Ban** on mercury in certain devices
- RoHS **ban** on covered electronics

Approach is not comprehensive and  
authority not specific

# *Green Chemistry: Two New Laws*

- AB 1879 (Feuer): Framework to respond to chemicals of concern and to assess alternatives
- SB 509 (Simitian): Increase information about toxicity for chemicals via an online portal

# *California Green Chemistry Initiative*

California is a leader in innovation, use, and manufacture of safer, ever more environmentally benign chemicals and products.

# *Three Strategies*

- Build Capacity
- Increase Infrastructure
- Create Tools for Better Decisions

# *Six Policy Recommendations*

- 1. Expand Pollution Prevention**
- 2. Develop Green Chemistry Workforce, Education, Research and Tech Transfer**
- 3. Create an Online Product Ingredient Network**
- 4. Create an Online Toxics Clearinghouse**
- 5. Accelerate the Quest for Safer Products**
- 6. Move Toward a Cradle-to-Cradle Economy**

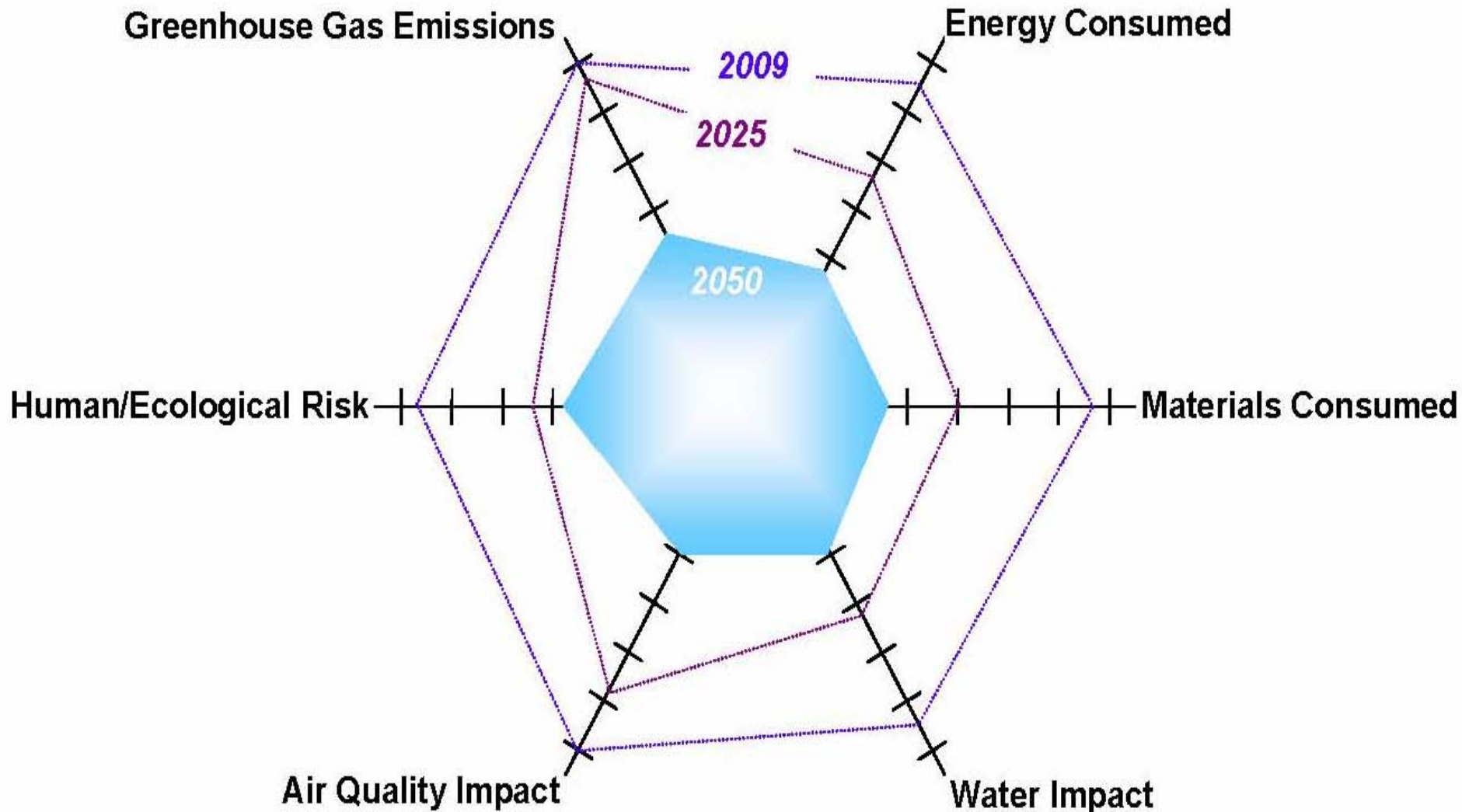
# *Next Steps...*

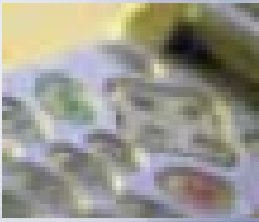
- Develop Regulations (AB 1879)
- Establish Clearinghouse (SB 509)
- Enter into information-sharing MOUs
- Appoint Green Ribbon Science Panel (AB 1879)

# *Next Steps...*

- Continue working with industry, environmental, science & education communities on implementation
- Explore implementation opportunities:

# *Sample Environmental Footprint*





# *Expand Pollution Prevention*

Assist California facilities to shift their focus from end-of-pipe waste management to greener design and production.

## **Actions**

- Spread technology and information resources to more businesses
- Expand voluntary program to include tools to reduce chemical use

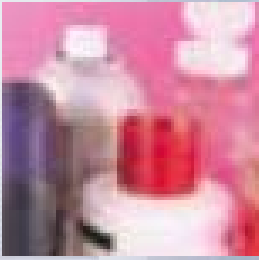


# *Develop Workforce Education & Training / R&D / Tech Transfer*

- Expand workforce education & training
- Foster research and development in new product design
- Enhance technology transfer

## **Actions**

- Call on higher education to enhance California's scientific and develop green chemistry curricula
- Expand EEI for K-12 students
- Invest in research and green technology
- Establish green technology incubators



# *Create Online Product Ingredient Network*

Provide California businesses, retailers, and consumers with access to the chemical ingredients in their products

## **Actions**

- Require product ingredient disclosure
- Create online web registry
- Protect trade secrets with “virtual vault”

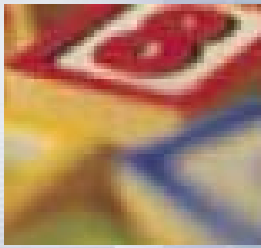


# *Create Online Toxics Clearinghouse*

Increase knowledge on toxicity and traits of chemicals used in products

## **Actions**

- Agreements with countries and other states to share data/information
- Appoint Green Ribbon Science Panel to prioritize data needs
- Identify specific data needs



# *Accelerate Quest for Safer Products*

- Assess chemicals in products
- Identify safer alternatives
- Allow for regulatory responses

## **Actions**

- Develop regulations / prioritize chemicals of concern
- Develop science-based alternatives assessment decision-making tool
- Coordinate with existing consumer protection & product safety efforts
- Environmental Policy Council provides oversight



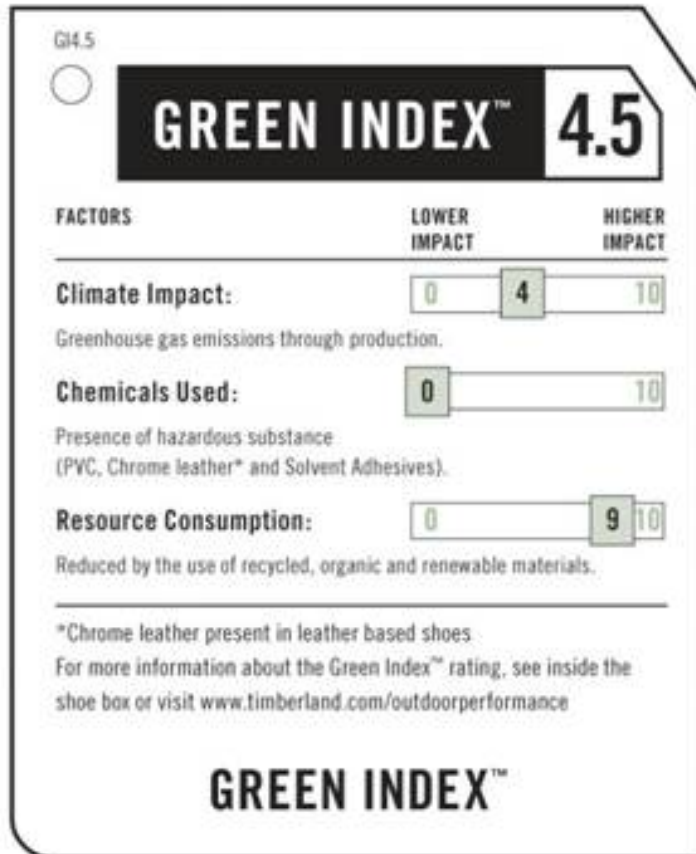
# *Move toward a Cradle-to-Cradle Economy*

Leverage market forces to design products without waste or toxic ingredients

## **Actions**

- Establish Green Products Registry, a non-governmental organization to develop product standards and tools
- Develop metrics for measuring environmental impact of products (e.g. footprint calculators) to establish targets & measure progress
- Lead by example – State Agency purchasing

# Know Your Product's Footprint



## Our Footprint Notre Empreinte

### Environmental Impact Impact sur l'environnement

Energy to Produce: (per pair)* Énergie utilisée (par paire)*	2kWh 2kWh
Renewable energy (Timberland-owned facilities): L'énergie renouvelable (sites appartenant à Timberland) :	5% 5%

### Community Impact Impact sur la communauté

Hours served in our communities: Nombre total d'heures données :	119,776 119,776
% of factories assessed against code of conduct:* % d'usines évaluées pour leur conformité au code de conduite :*	100% 100%
Child labor:* Main-d'œuvre enfantine :*	0% 0%

### Manufactured Fabriqué à

Shingtak, China Shingtak, Chine

\* metrics based on global footwear production for 2005

\* informations fondées sur production totale de chaussures en 2005

FOR MORE INFORMATION VISIT [WWW.TIMBERLAND.COM/CSRREPORT](http://WWW.TIMBERLAND.COM/CSRREPORT)  
POUR PLUS D'INFORMATIONS : [WWW.TIMBERLAND.COM/CSRREPORT](http://WWW.TIMBERLAND.COM/CSRREPORT)

*Environmental Footprint for a Timberland Shoe*