DTSC seminar series presentation
February 2009

Detoxifying California: What's Our Plan?

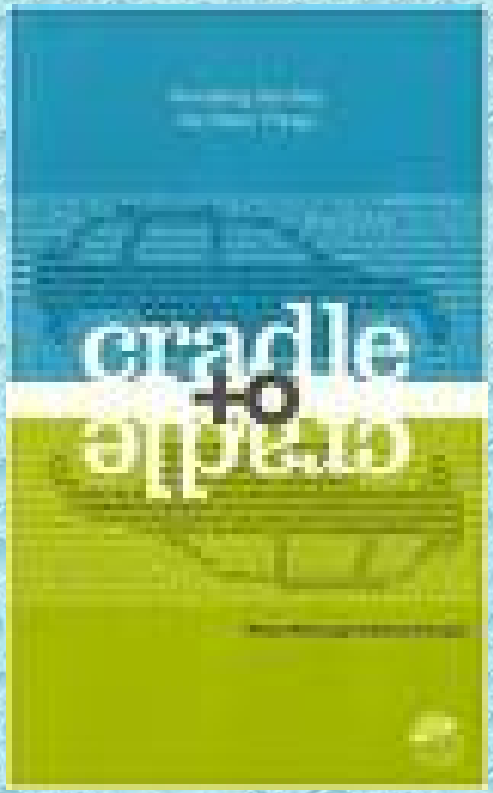
The recent evolution of the Office of Pollution Prevention & Green Technology

Claudia Polsky, Deputy Director
Office of Pollution Prevention & Green Technology
California Department of Toxic Substances Control

2008 at DTSC:

Preparation for new authority of unknown scope and content

William McDonough &
Michael Braungart, 2002



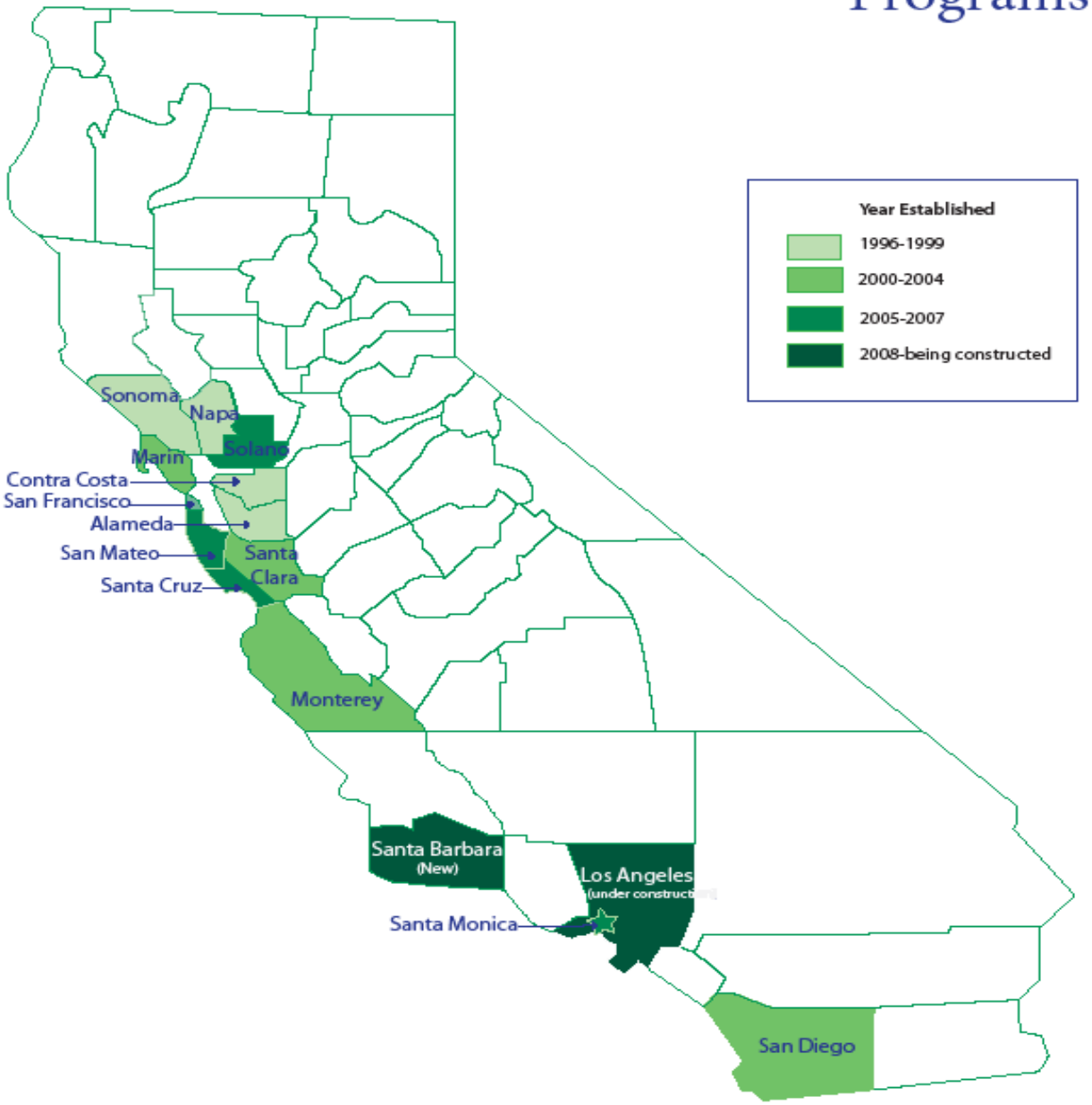
MAKING THE MOST OF TOOLS & EXPERTISE WE ALREADY HAVE

1. Maximize effectiveness of voluntary P2 programs

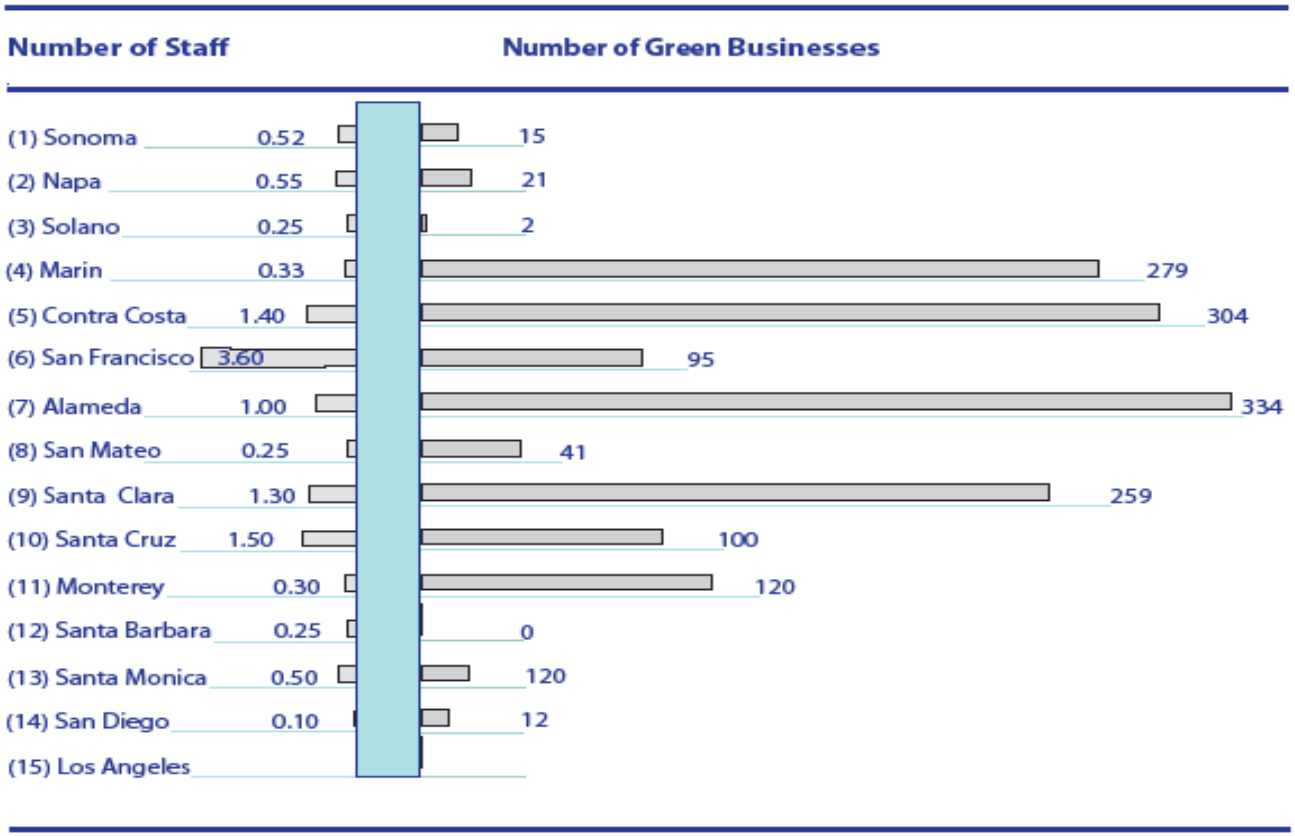
- **Source-reduction statutory amendment proposal**
  - hazwaste -> lifecycle & multimedia focus
  - more flexible

Green Business Program support

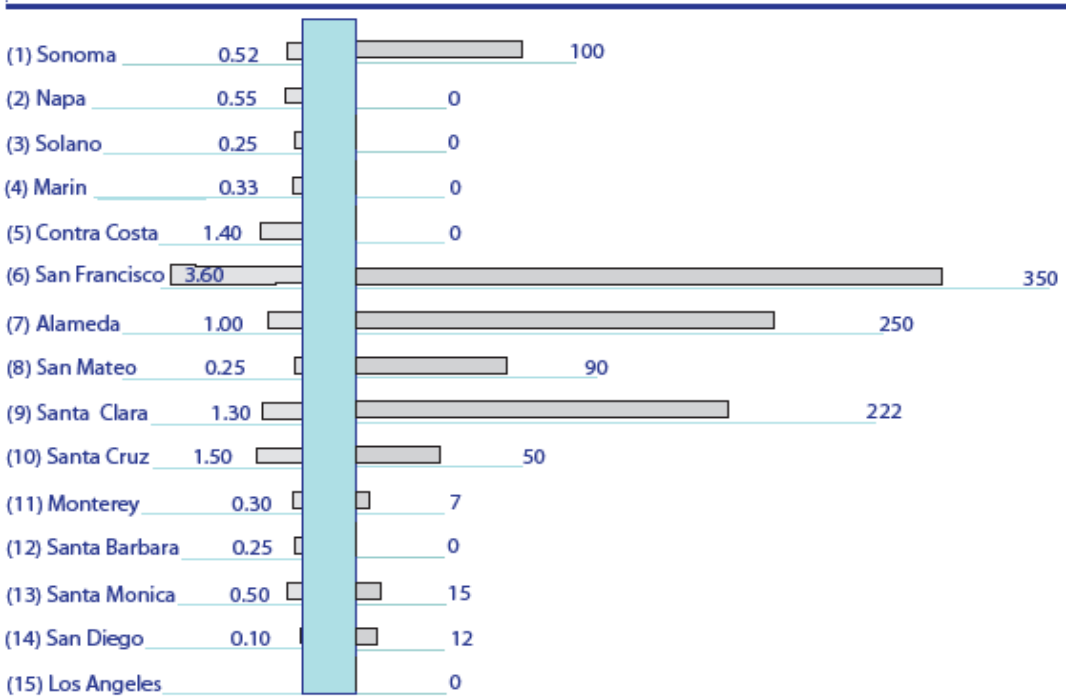
Establishment of California Green Business Programs



California Green Business Programs (GBPs)



California Green Business Programs Waiting List



Increase businesses' adoption of P2 practices

- **Business Outreach Unit creation**

tasks to include:

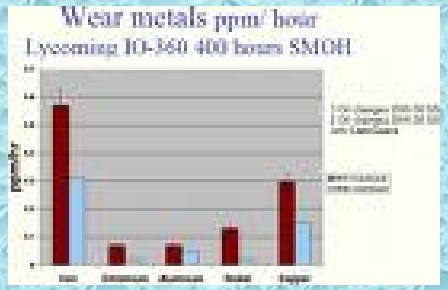
- *** Persuading industry to adopt P2/Green Tech**
- *** Placing stories in trade press**
- *** Reinvigorating P2 Week**
- *** Measuring results**

2. Turn research projects into <u>actions</u>, & <u>transfer</u> green tech

Motor oil use reduction

High-efficiency oil filters (green engineering)

Oil analysis (education)



Conversion to synthetic oil (green chemistry)

On-board diagnostics (data systems)

Quick-lube practice changes (education)

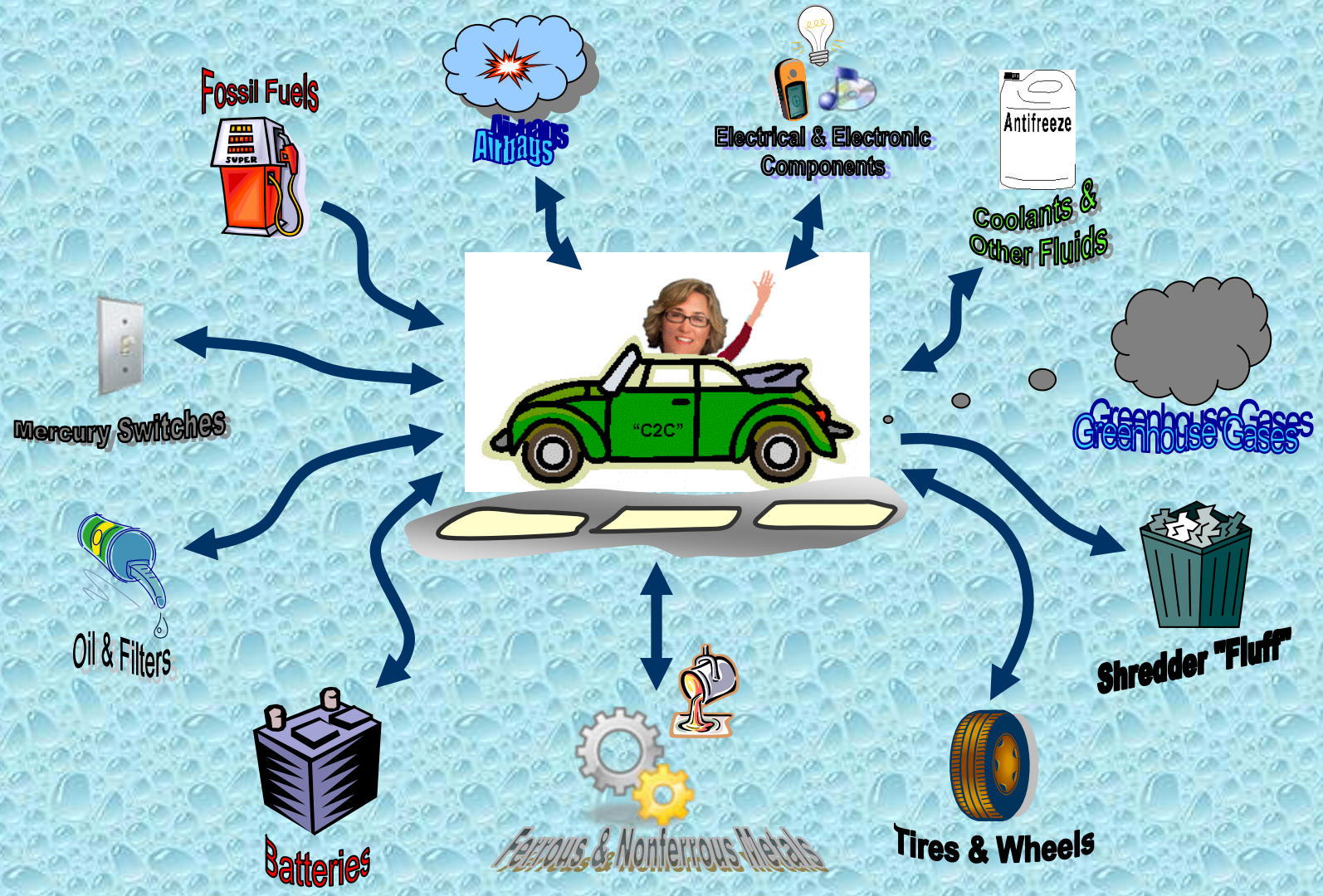
Non-chemical water cooling towers project?

3. Pursue thematic projects to realign towards design

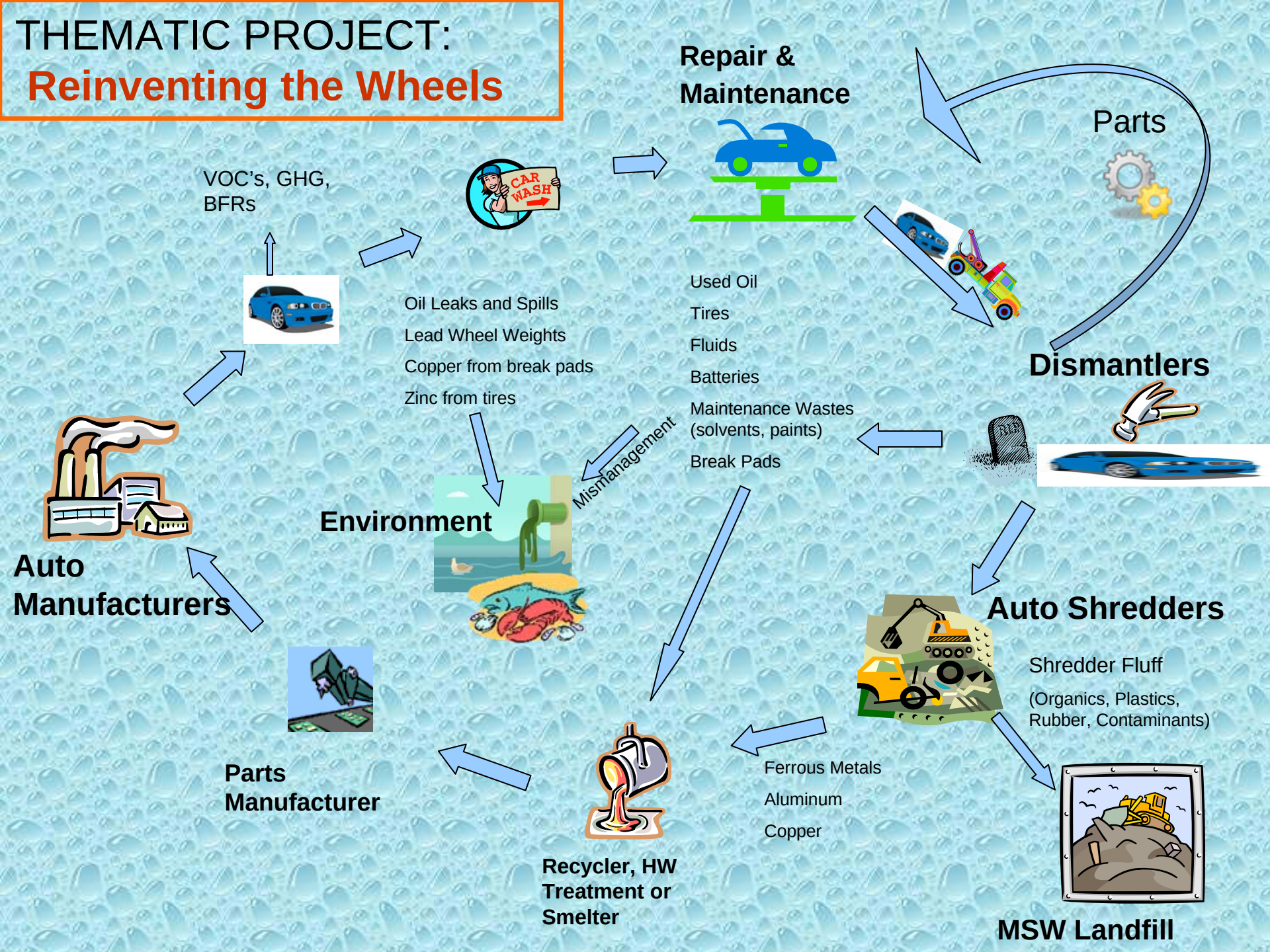
THEMATIC PROJECT:
Plastic Hazard Reduction

- 4-year, $6.6M project for DOC
- 9 PY + contracts (Stanford University; marketing)
- Reduce life-cycle impacts of plastic beverage containers through, *e.g.*:
  - Development & demo of waste-derived bioplastics
  - Toxicity reduction of conventional plastics
  - ID of chemical/process alternatives for manufacturing & recycling
  - Maximizing commercialization potential

"Cradle-to-Cradle" Design: Rethinking the "Toxic" Automobile



THEMATIC PROJECT:
Reinventing the Wheels



Near term projects

- Copper in brake pads

- Lead in wheel weights

4. Enhance environmental justice

- **metal finishing sub-team**

(B. Gipson & Team)

- **California Accidental Release Program (CalARP) -** focused proposal

(A. Sargent)

- **Nail salon sector project**

(M. Lau + P2 branch + Tox in Products branch)

Late 2008 legislative outcome

AB 1879 (Feuer):

Chemicals of concern in consumer products

SB 509 (Simitian): Toxics Information Clearinghouse

5. Implement Green Chemistry legislation (AB 1879)

Identifying / prioritizing "Chemicals of Concern"

8 chemicals in cosmetics

phosphates in detergents

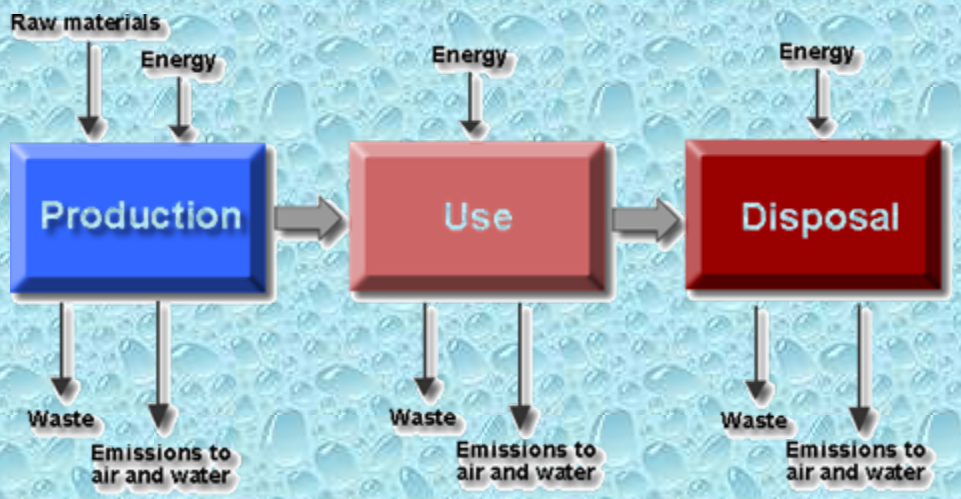
Flame retardants in bedding & furniture

BPA in bottles & cups

PFOA/PFOS in food contact applications

PVC in packaging

Rules for “LIFE CYCLE ANALYSIS”



	Paper bag	Plastic bag
Raw materials:	Wood (renewable)	Oil/gas (non-renewable)
Energy to make:	1.7 megaJoules	1.5 megaJoules
Solid waste:	50 grammes	14 grammes
Air emissions:	2.6 kg	1.1 kg
Global warming: (CO2 equivalents)	0.23 kg	0.53 kg

Waste classification → systems thinking

GHG implications?

Solid waste Implications?

Treated Wood Waste:
Are creosote-treated railroad ties hazardous?

Hazard versus exposure potential?

Availability of alternatives?

Integrating DTSC and CIWMB authorities to impose Extended Producer Responsibility

Internal GCI capacity-building

- **meetings with industry** (e.g., Clorox)
- **international partnerships** (e.g., RoHS enforcement)

SOON:

- **SIN (Substitute-it-Now) list training**
- **REACH training**
- **Additional GGI-related training**

6. Educate the public about toxics

- **Symposia**
  (J. Kong, R. Brushia, T. Ogburn, N. Lee)

- **Web redesign** (H. Jones)

- **Trade press**
  (Fleet News, trade press database)

- **Fact sheets on emerging toxics issues**
  (e.g., triclosan)

P2 SYMPOSIA - 2009

The greening of electronics in a global economy
(DTSC-sponsored; co-organized by Intertek lab)
February 2009

Green Remediation

Environmentally Preferred Purchasing for Local Governments
(co-sponsored with ABAG)
March 2009

$how me the Money:
Getting VC [venture capital] into GC [green chemistry]
Spring/Summer 2009 [TBD]

Nanotech

WEB SITE REDESIGN

http://dtsc-cm/TestVerity/Pollution_Prevention_Test/index_backup_011609.cfm
File Edit View Favorites Tools Help Convert Select
Office of Pollution Prevention and Green Technology -...
Page Tools

QUICK LINKS

- DTSC Data
- EnviroStor
- Permit Appeals
- Fact Sheets, Publications and Forms
- Laws, Regs & Policies
- News Room

RESOURCES

- Regulatory Assistance
- Employment
- Decisions Pending and Opportunities for Public Participation
- DTSC Events Calendar

Office of Pollution Prevention and Green Technology -Old Version

Click on one of the links below to go directly to a specific topic:

Pollution Prevention Overview
SB 14 Industry-Specific Assessment Reports
Hazardous Waste Source Reduction Planning Requirements -- SB 14
Advisory Committee, Workplan and Projects -- SB 1916
Success Stories
Green Chemistry Resources
European Union REACH program
Chemical Industry Challenge Project
Metal Finishing Model Shop Program
Pollution Prevention Technical Forums
California – Baja California Border Pollution Prevention Project
Mercury Elimination Leadership Program (HELP)
Vehicle Service and Repair Project
Auto Body and Paint Shops Project
National Pollution Prevention Week 2008 - September 22-28, 2008
Local Government Pollution Prevention Partnerships
Pollution Prevention Links
Environmental Education
Publications and Forms
P2 E-News

Local intranet 100%

QUICK LINKS

- DTSC Data
- EnviroStor
- Permit Appeals
- Fact Sheets, Publications and Forms
- Laws, Regs & Policies
- News Room

RESOURCES

- Regulatory Assistance
- Employment
- Decisions Pending and Opportunities for Public Participation
- DTSC Events Calendar

Office of Pollution Prevention and Green Technology

Mission and Objectives

The mission of DTSC's Pollution Prevention program is to promote pollution prevention by providing state leadership, guidance, and assistance to industry, local government, and other environmental agencies. Read more about our objectives.

Green Technology / Green Remediation

The Green Technology branch is responsible for evaluating innovative technologies to treat, recycle, clean up, and eliminate or reduce hazardous waste.

Toxics in Products

The mission of the Toxics in Products branch is to eliminate or reduce toxic chemicals in products and ensure that products are appropriately managed at the end of their useful life.

Pollution Prevention

The Pollution Prevention branch provides guidance for industries and local Green Business programs and promotes hazardous waste reduction through voluntary techniques, including source-reduction planning (SB 14) and sector-specific planning (SB 1916).

Events

Check our calendar of upcoming meetings and programs, and learn about past P2 events.

Publications and Forms

See our publications list (which includes links to online forms when available) as well as our online Pollution Prevention publications and Evaluating Technology publications, and sign up for DTSC Listservs, including P2 E-News.

Staff Contacts

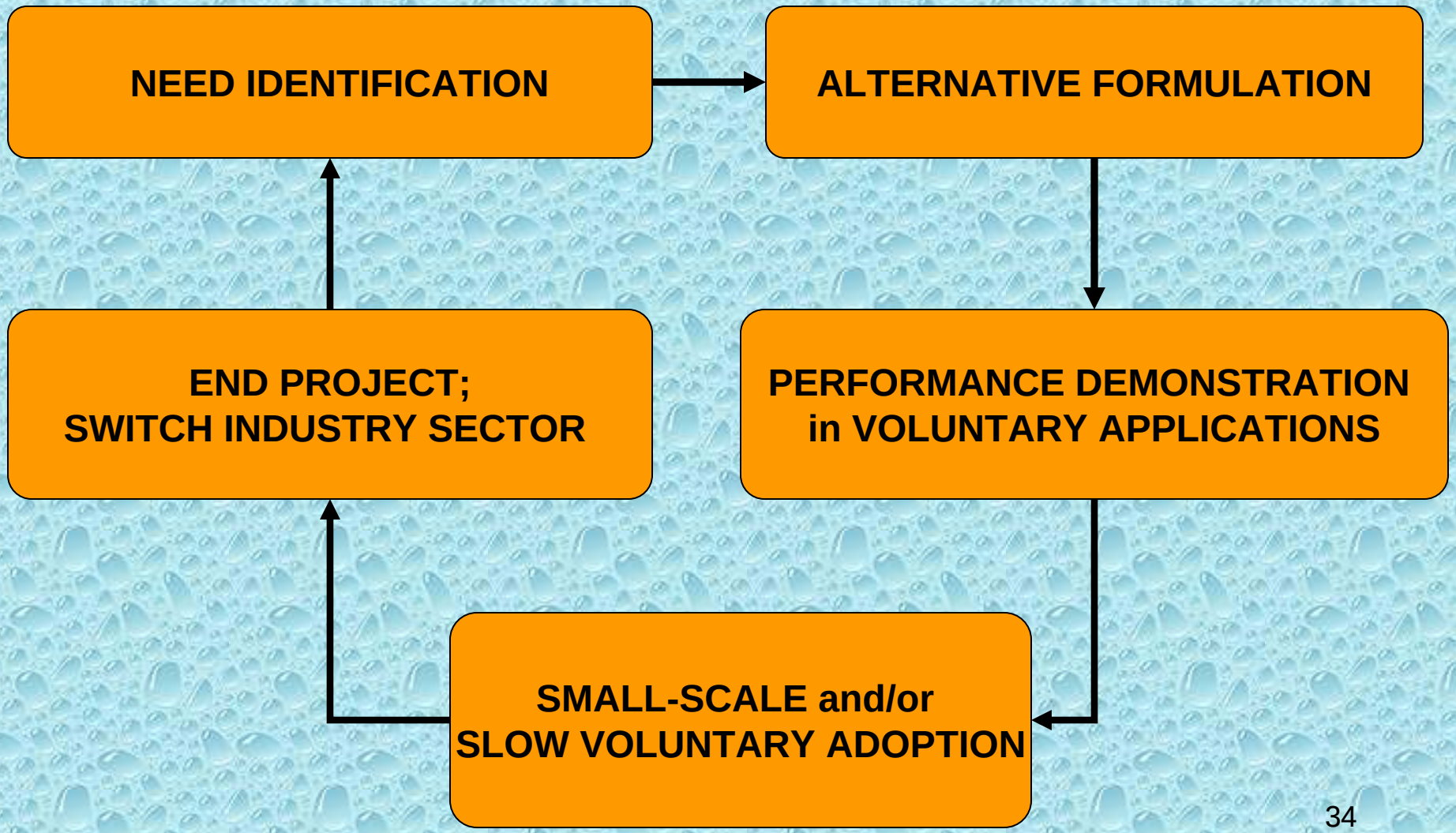
Contact staff members with questions or comments. Other resources and links are also available.

1. Maximize effectiveness of voluntary P2 programs
2. Turn research projects into actions, & transfer green tech
3. Pursue thematic projects to realign towards design
4. Enhance environmental justice
5. Implement AB 1879 (green chemistry)
6. Educate the public about toxics

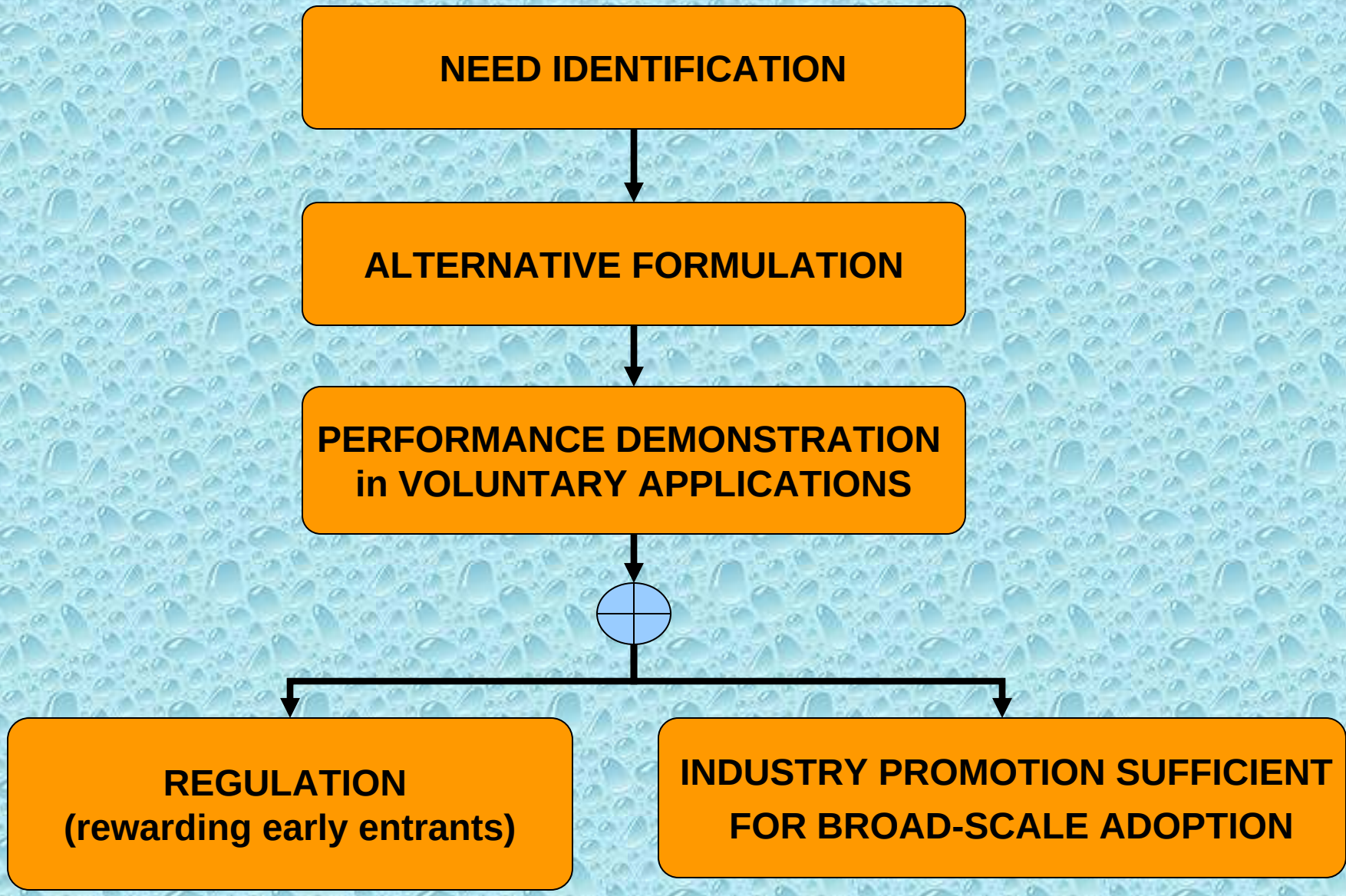
7. Future goal for P2 office?

Integration of voluntary and mandatory programs

Old Model


NEED IDENTIFICATION
ALTERNATIVE FORMULATION
PERFORMANCE DEMONSTRATION in VOLUNTARY APPLICATIONS
SMALL-SCALE and/or SLOW VOLUNTARY ADOPTION
END PROJECT; SWITCH INDUSTRY SECTOR

New Model


NEED IDENTIFICATION
ALTERNATIVE FORMULATION
PERFORMANCE DEMONSTRATION in VOLUNTARY APPLICATIONS
REGULATION (rewarding early entrants)
INDUSTRY PROMOTION SUFFICIENT FOR BROAD-SCALE ADOPTION

MEASURING RESULTS

- Where voluntary measures cannot be demonstrably taken to scale, regulations step in.

- DTSC's P2 Office can help ensure smarter regulation for businesses, consumers, and the environment.

“Healthy Potions” lab